

# PARTS CATALOG

FOR

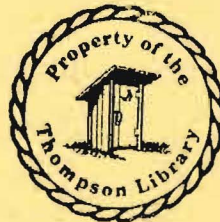


## ELECTRIC GENERATING PLANTS

# DSL

**SERIES**

AC & DC



# ONAN

**2515 UNIVERSITY AVE. S. E. · MINNEAPOLIS, MINNESOTA 55414**

A DIVISION OF STUDEBAKER CORPORATION

**IN CANADA: ONAN GENERATORS CANADA LTD., 233 CAMPBELL ROAD, GUELPH, ONTARIO  
INTERNATIONAL DISTRICT OFFICE: EMPIRE STATE BLDG., 350-5TH AVE., RM. 2204, NEW YORK 10001**



# INSTRUCTIONS FOR ORDERING REPAIR PARTS

FOR PARTS OR SERVICE, CONTACT THE DEALER FROM WHOM  
YOU PURCHASED THIS EQUIPMENT OR REFER TO YOUR NEAR-  
EST AUTHORIZED SERVICE STATION.

TO AVOID ERRORS OR DELAY IN FILLING YOUR PARTS ORDER, PLEASE  
FURNISH ALL INFORMATION REQUESTED.

REFER TO THE NAMEPLATE ON YOUR PLANT

1. Always give the MODEL & SPEC. NO. and SERIAL NO.

ELECTRIC		<b>Onan</b>		PLAN	
MODEL AND SPECIFICATION NO.			SERIAL NO.		
<b>IMPORTANT</b> MENTION ABOVE NUMBERS AND GEN DATA NO. WHEN ORDERING PARTS OR WRITING ABOUT THIS PLANT.					
RATINGS AT SEA LEVEL BASED ON FUEL CHECKED BELOW:					
GASOLINE		DIESEL FUEL			
STAND BY	KW		KVA		AMPS
CONTINUOUS	KW		KVA		AMPS
A.C. VOLTS		CYCLES		PHASE	P.F.
EXCITER		GEN. DATA			
R.P.M.		USE		VOLT BATTERY-NEGATIVE GROUND	
MANUFACTURED BY ONAN					
MINNEAPOLIS, 14, MINNESOTA					
MADE IN U.S.A.					

For handy reference, copy **YOUR** plant  
nameplate information in the spaces above.

2. Do not order by reference number or group number, use part number and description.
3. Give the part number, description and quantity needed of each item. If an old part cannot be identified, return the part prepaid to your dealer or nearest AUTHORIZED SERVICE STATION. Print your name and address plainly on the package. Write a letter to the same address stating the reason for returning the part.
4. State definite shipping instructions.

Any claim for loss or damage to your unit in transit should be filed promptly against the transportation company making the delivery. Shipments are complete unless the packing list indicates items are back ordered.

"Prices are purposely omitted from this Parts Catalog due to the confusion resulting from fluctuating costs, import duties, sales taxes, exchange rates, etc.

For Current parts prices, consult your Onan Dealer, Distributor or Parts and Service Center."

"En esta lista de partes los precios se omiten de proposito, ya que bastante confusion resulto de fluctuaciones de los precios, derechos aduanales, impuestos de venta, cambios extranjeros etc.

Consigalos precios vigentes de su distribuidor de productos "ONAN".

# PARTS CATALOG

This parts catalog applies to the standard DSL Generating Plants as listed in the Plant Data Table.

Parts are illustrated and identified by corresponding reference numbers in the Parts List. Parts illustrations represent typical items and do not necessarily portray a particular part number.

Compare your plant nameplate MODEL and SPEC. NO. with the Plant Data Table. Select the Parts Key No. (1, 2 etc. in the last column) that applies to your plant Model and Spec. No. This Parts Key No. appears in the description of parts that differ between models. Unless otherwise mentioned in the parts description (or group heading), parts are interchangeable between the various models.

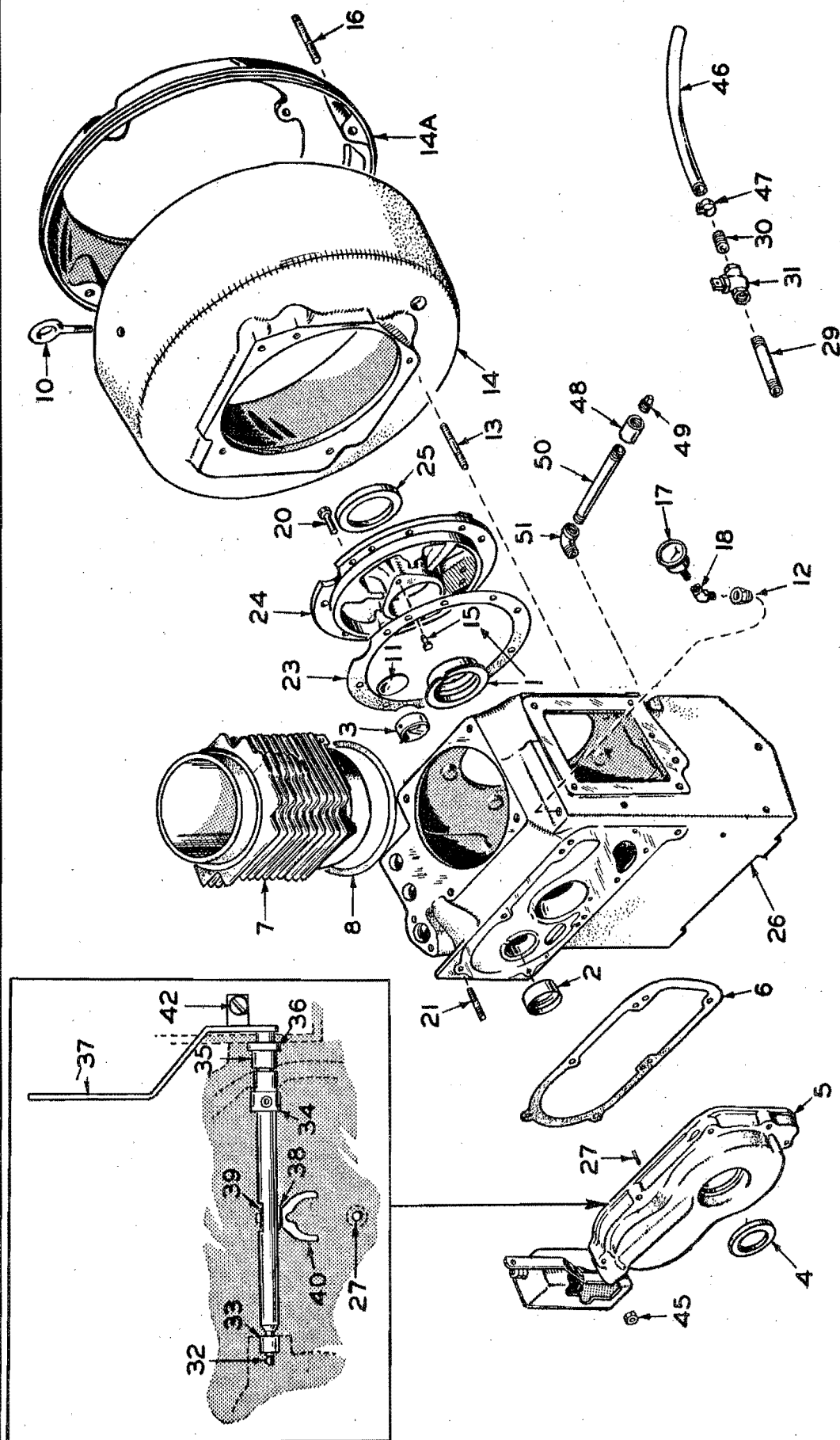
## PLANT DATA TABLE

★ MODEL AND SPEC NO.	TYPE	ELECTRICAL DATA					PARTS KEY NO.
		WATTS	VOLTS	CYCLES	PHASE	WIRE	
3DSL-1R/ 3DSL-2R/ 205DSL-51R/ 205DSL-52R/	REMOTE REMOTE REMOTE REMOTE	3000 3000 2500 2500	120 240 120 240	60 60 50 50	1 1 1 1	2 2 2 2	1
3DSL-3R/ 3DSL-3CR/ 205DSL-53R/	REMOTE REMOTE REMOTE	3000 3000 2500	120/240 120/240 120/240	60 60 50	1 1 1	3 † 3	2
3DSL-5R/ 205DSL-55R/	REMOTE REMOTE	3000 2500	240 240	60 50	3 3	3 3	3
3DSL-1R4/	REMOTE	3000	120AC 32DC	60	1	2	4
3DSL-210E/	ELECTRIC	3000	110-140	DC	-	-	5
205DSL-224R/	REMOTE	2500	24	DC	-	-	6
3DSL-232R/	REMOTE	3000	32	DC	-	-	7
3DSL-1E2236/ 3DSL-2E2236/ 3DSL-3E2236/	(Contractors Model) SEE SPECIAL PARTS SECTION (Page 36)						

★ - The NUMBER after the diagonal line signifies standard or optional features. The LETTER ending the model and spec. no. advances with manufacturing changes.

\* - Reference to 120, 240 and 120/240 volt also applies to 115, 230 and 115/230 volt.

† - These generators have 4 load wires which are reconnectible for 120-volt 2-wire service, or 240-volt 2-wire service, or 120/240-volt 3-wire service.



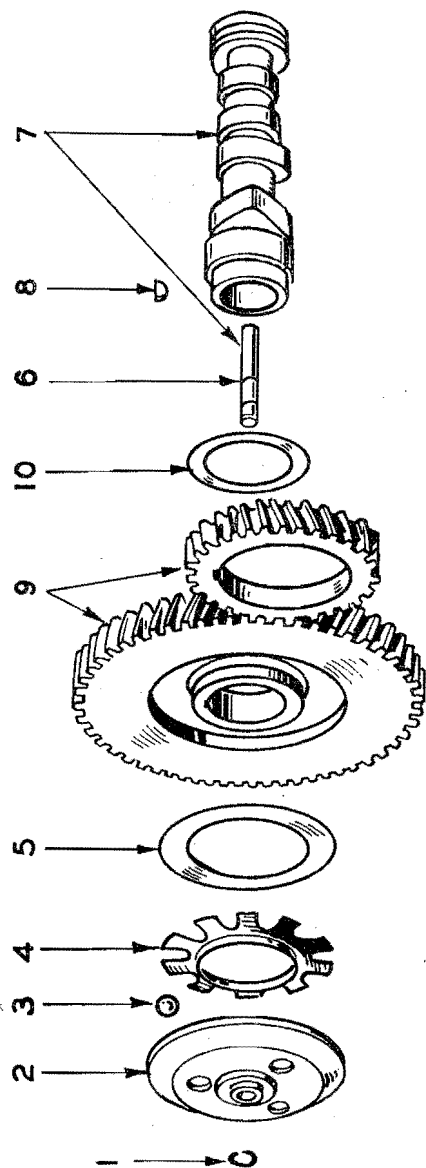


FIG.2-CAMSHAFT GROUP

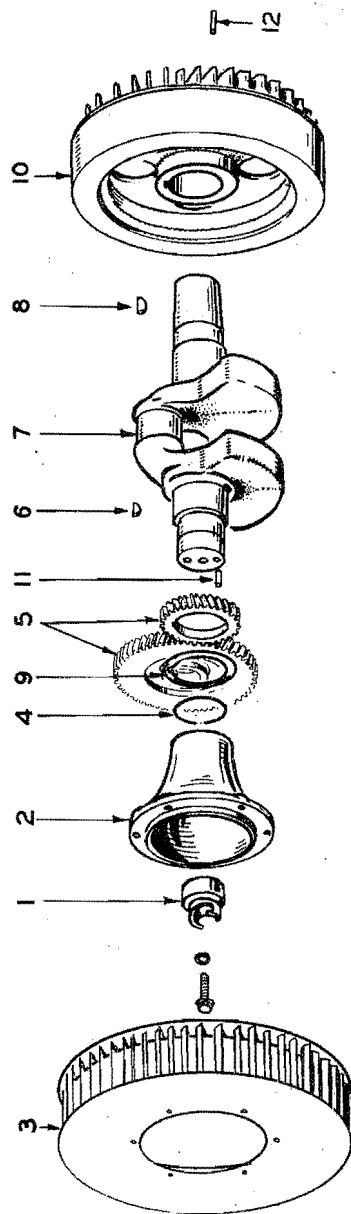


FIG.3-CRANKSHAFT AND FLYWHEEL GROUP



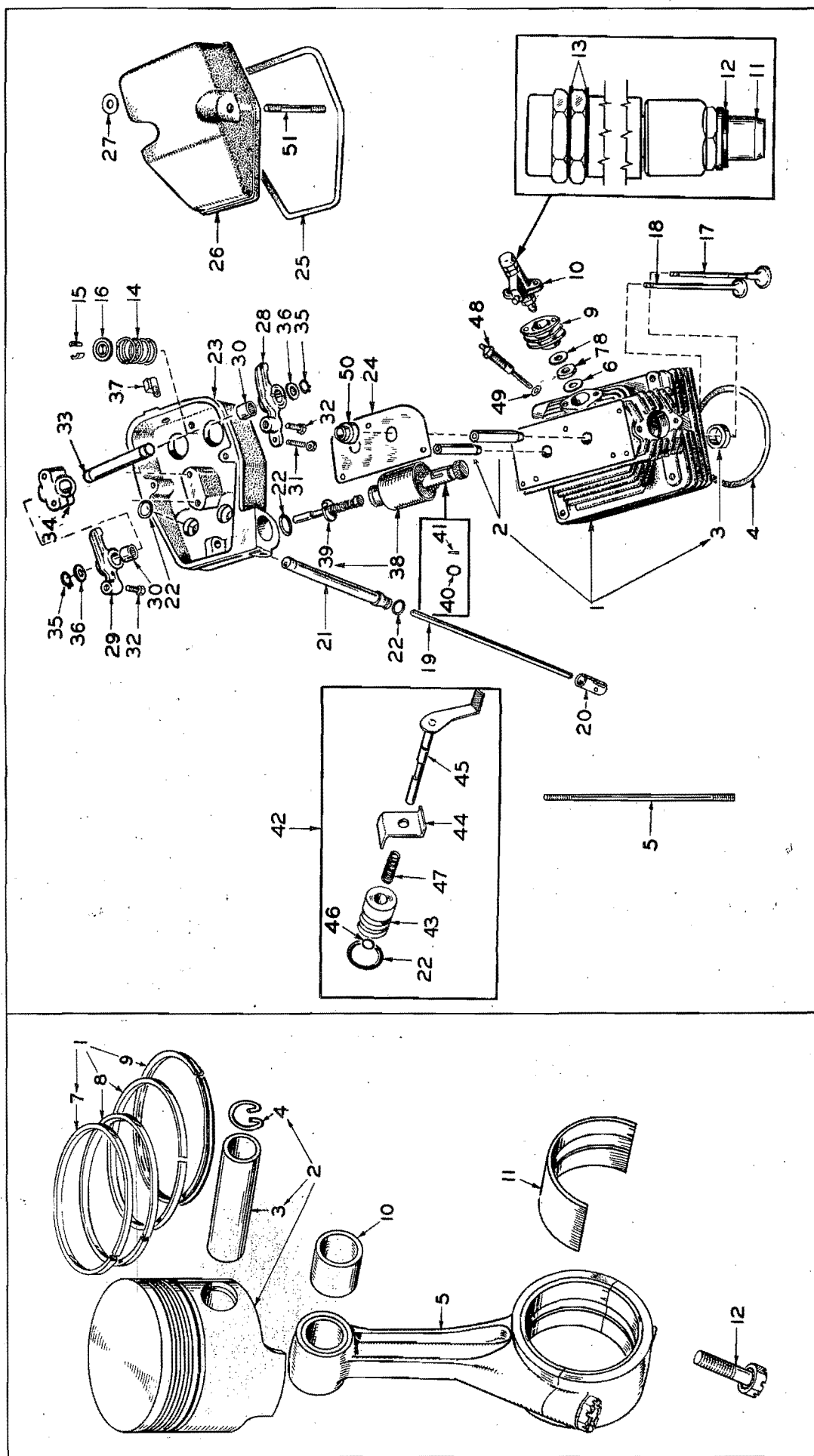
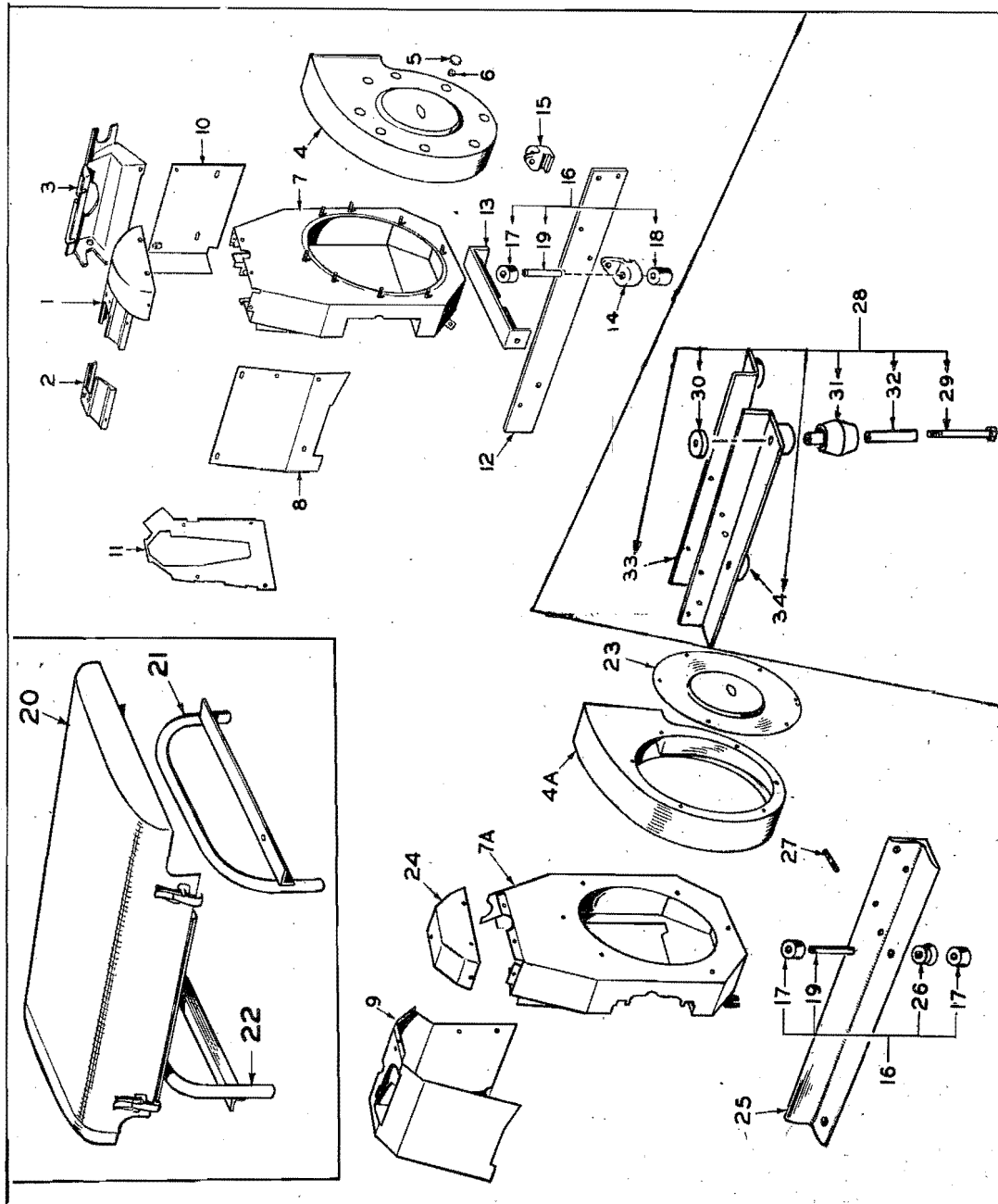
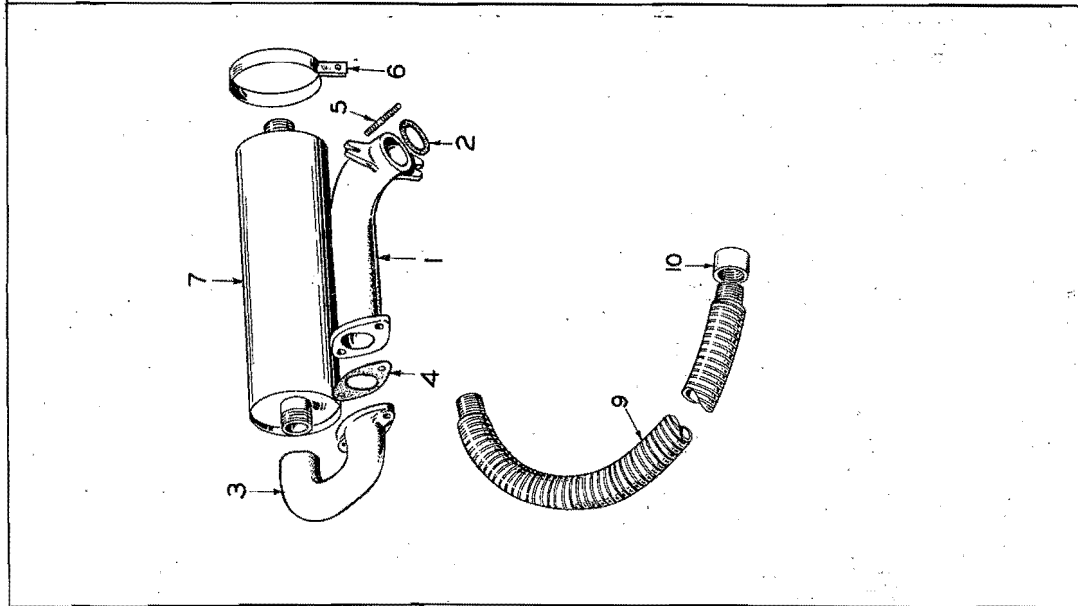
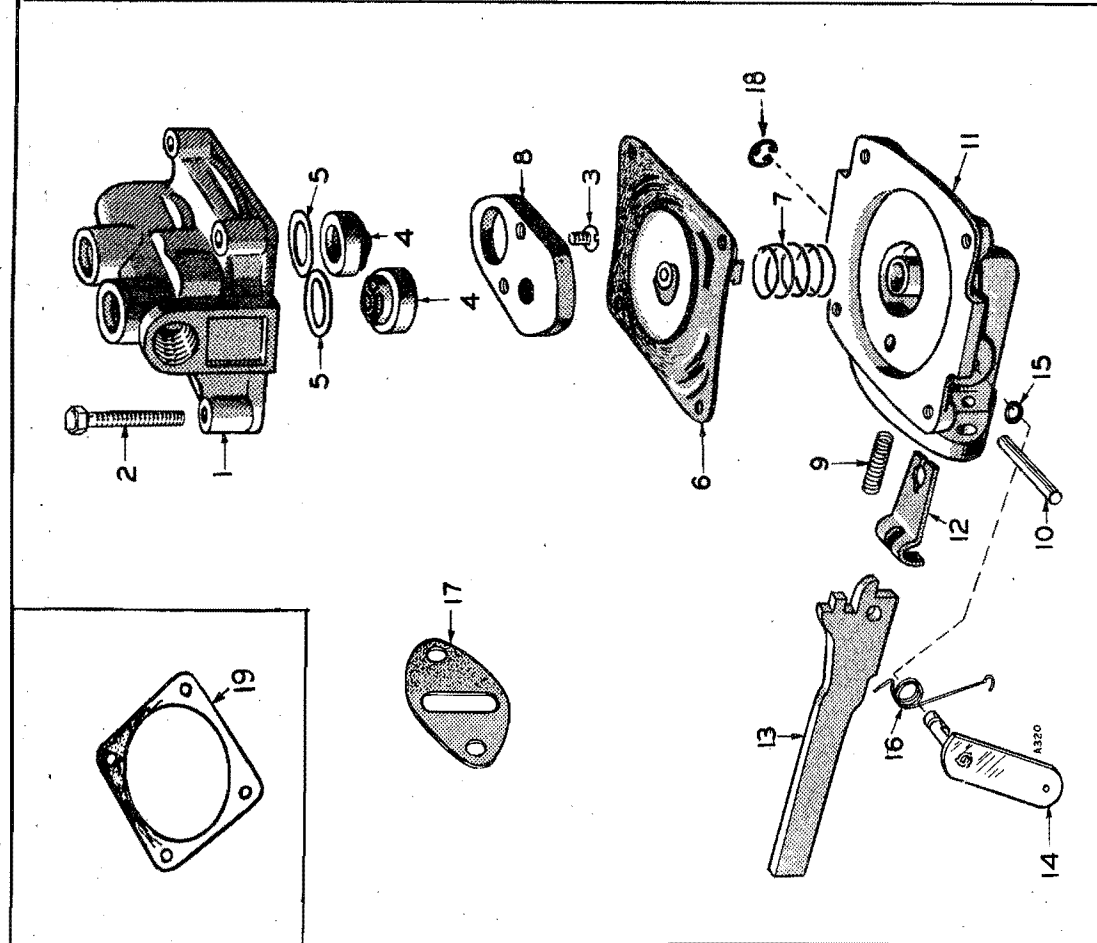


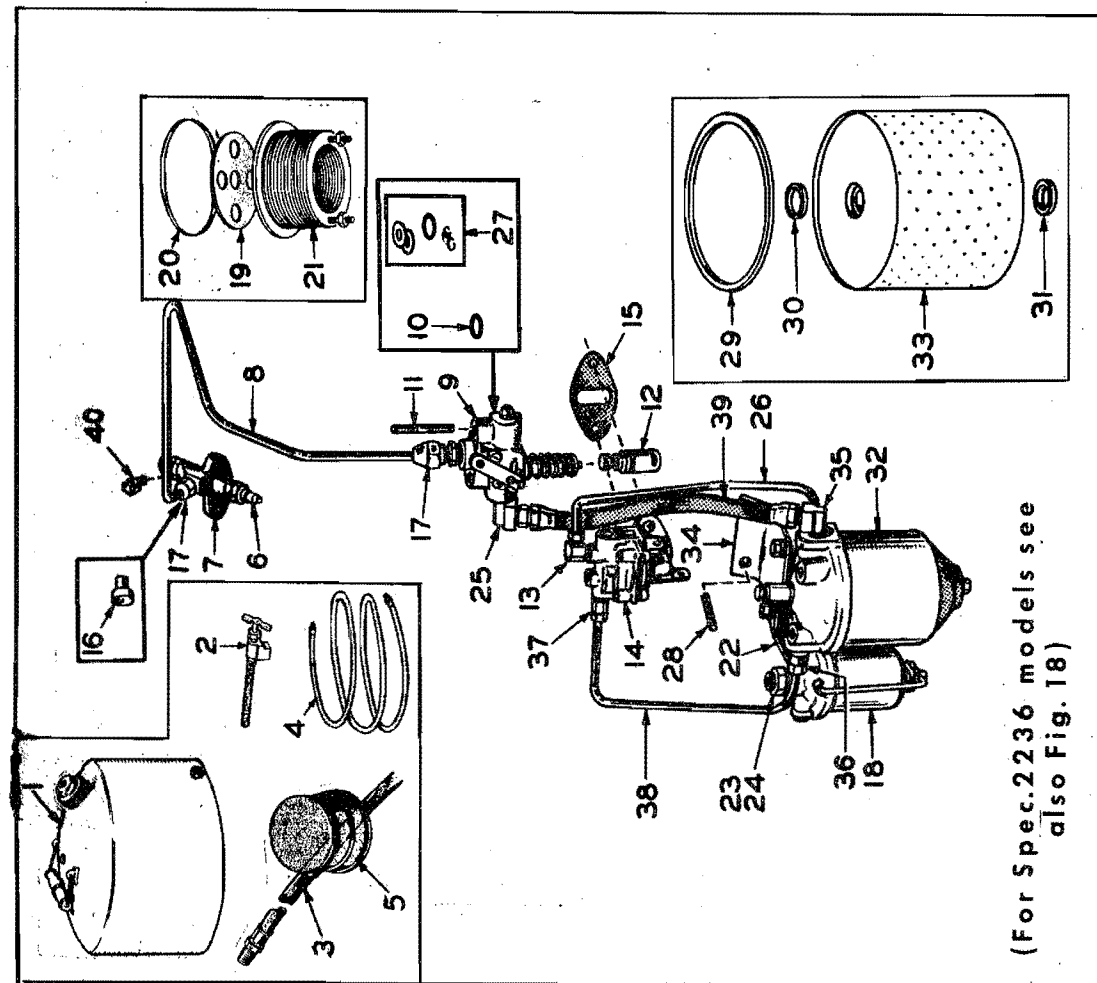
FIG.5-CYLINDER HEAD, VALVE AND ROCKER BOX GROUP

FIG.4-PISTON AND CONNECTING  
ROD GROUP



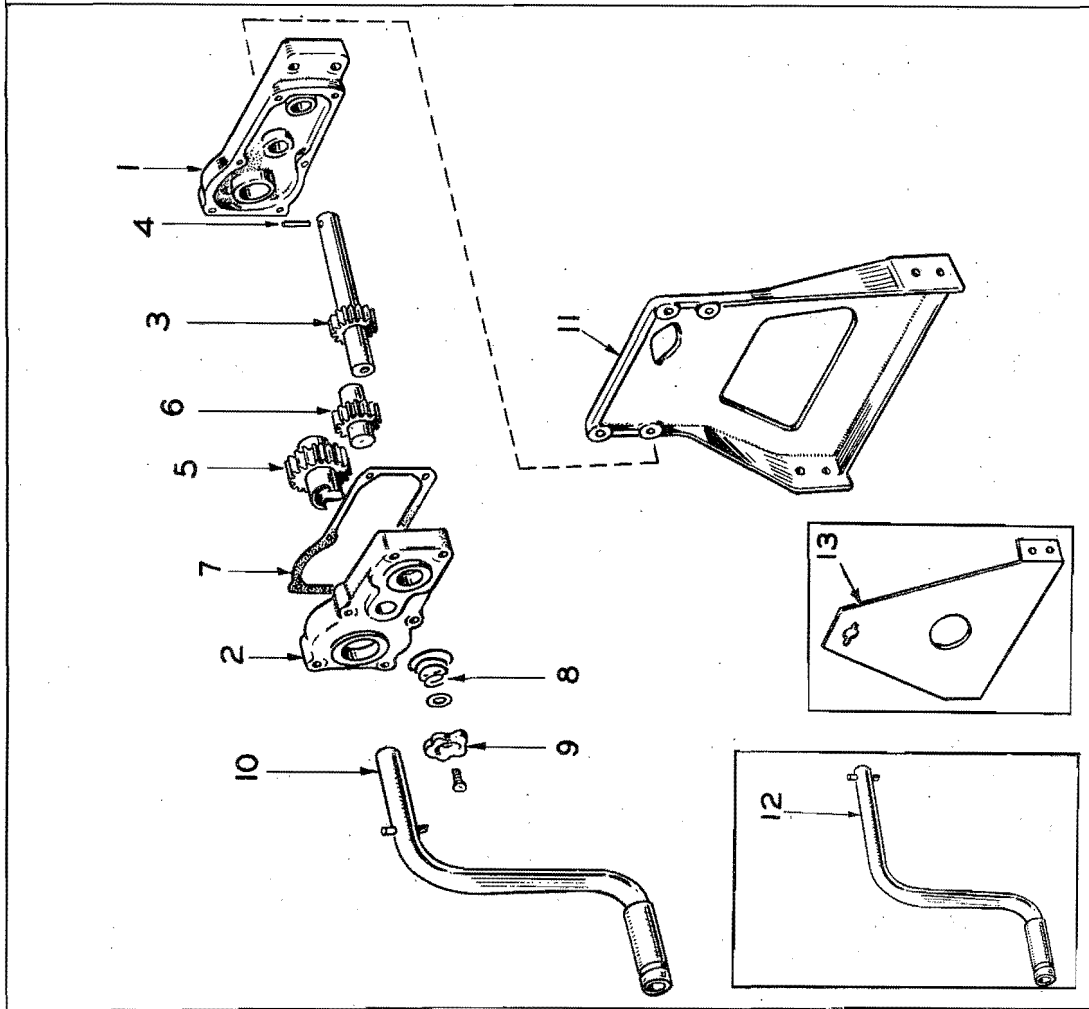


**FIG. 8-FUEL TRANSFER PUMP GROUP**

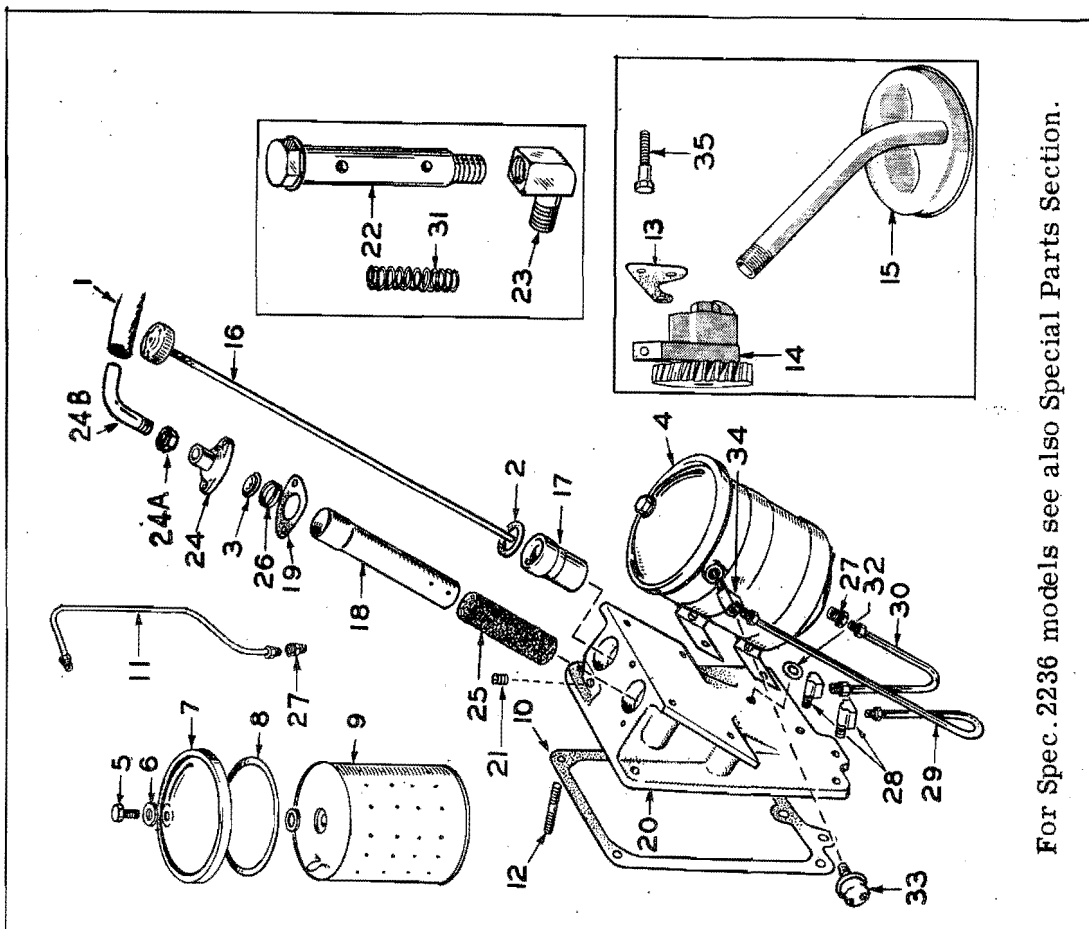


**FIG. 9-FUEL SYSTEM GROUP**



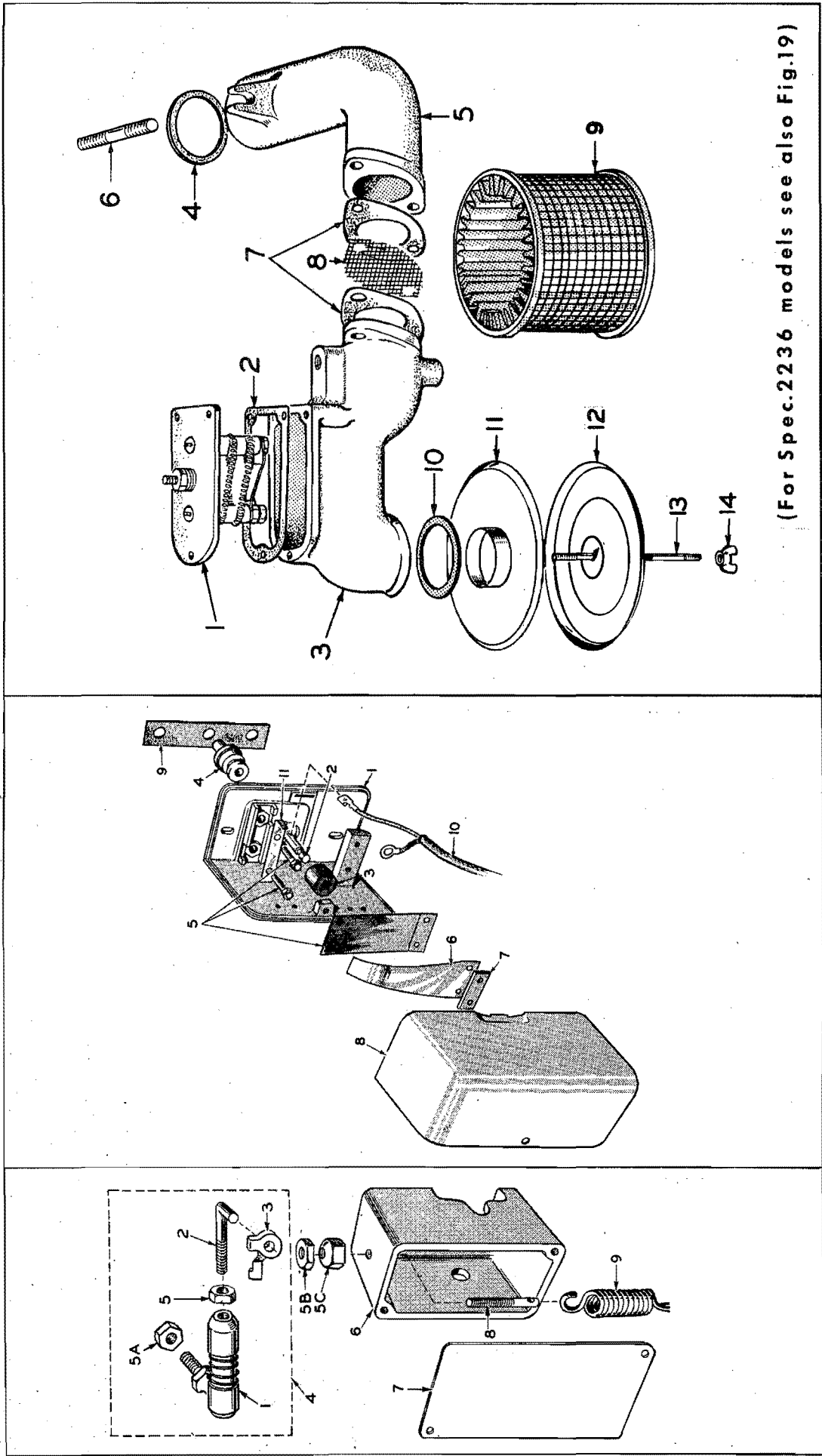


**FIG.10-GEARED HAND-CRANKING STARTER  
AND CONVENTIONAL CRANK GROUP**



For Spec. 2236 models see also Special Parts Section.

**FIG.11-OIL SYSTEM GROUP**



(For Spec. 2236 models see also Fig. 19)

FIG. 14-AIR CLEANER AND HEATER GROUP

FIG. 13-ANTI-FLICKER GROUP  
(AC Models)

FIG. 12-GOVERNOR  
GROUP

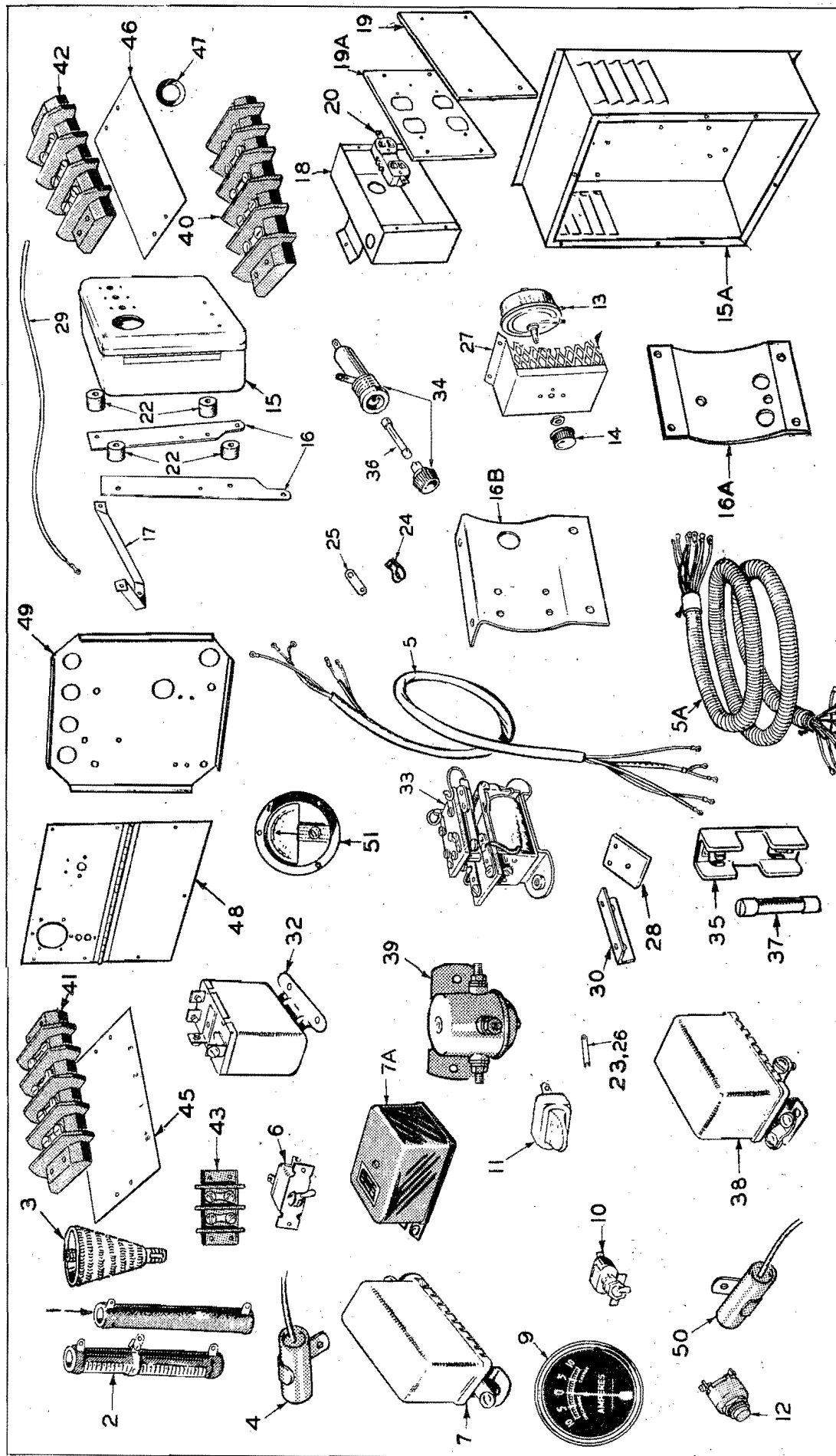
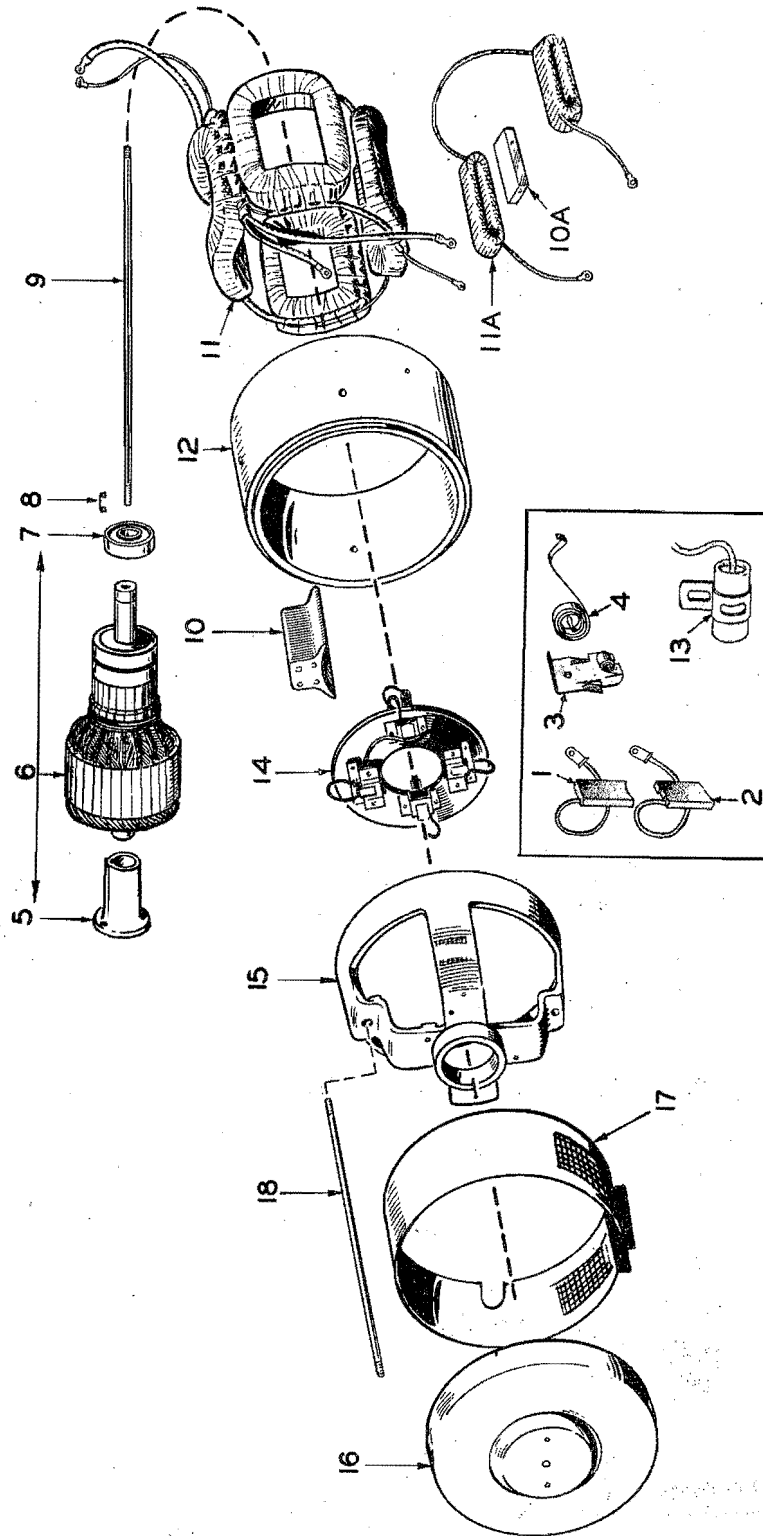
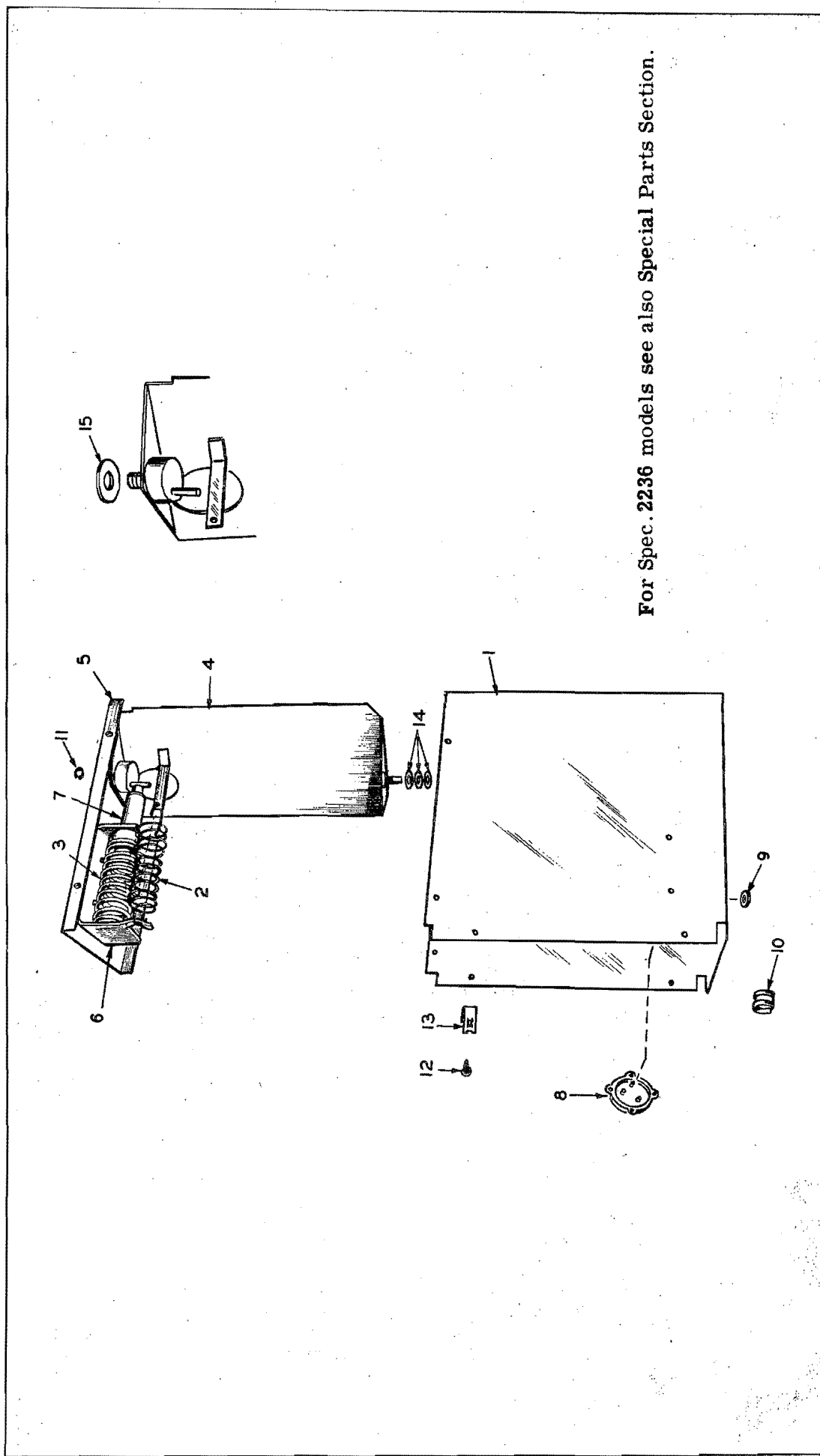


FIG.15-CONTROL PANEL GROUP  
(For Spec.2236 models see Fig.20)



For Spec. 2236 models see also Special Parts Section.

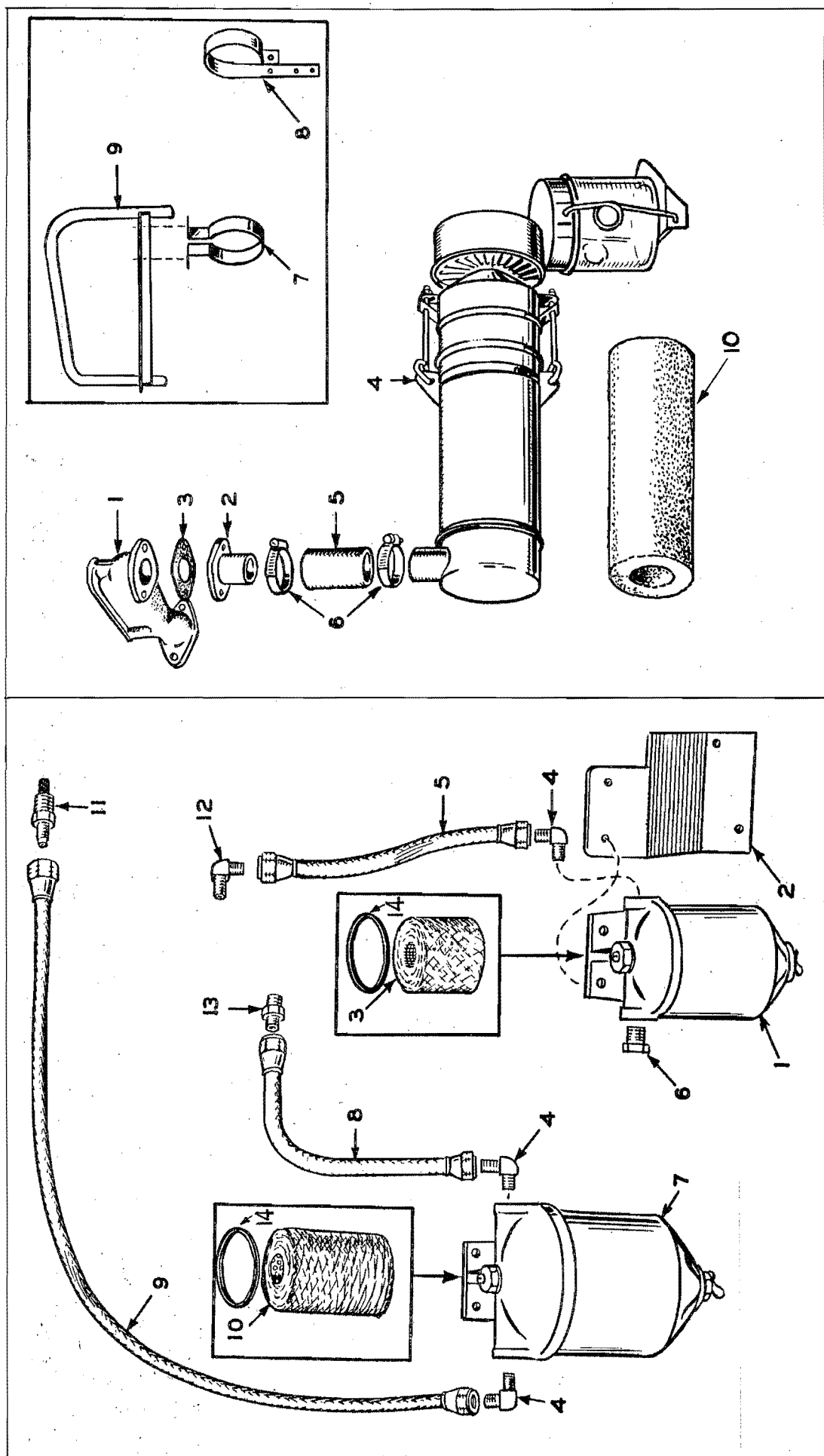
FIG.16-GENERATOR GROUP



For Spec. 2236 models see also Special Parts Section.

FIG.17 - AIR SHUTTER GROUP (OPTIONAL EQUIPMENT)





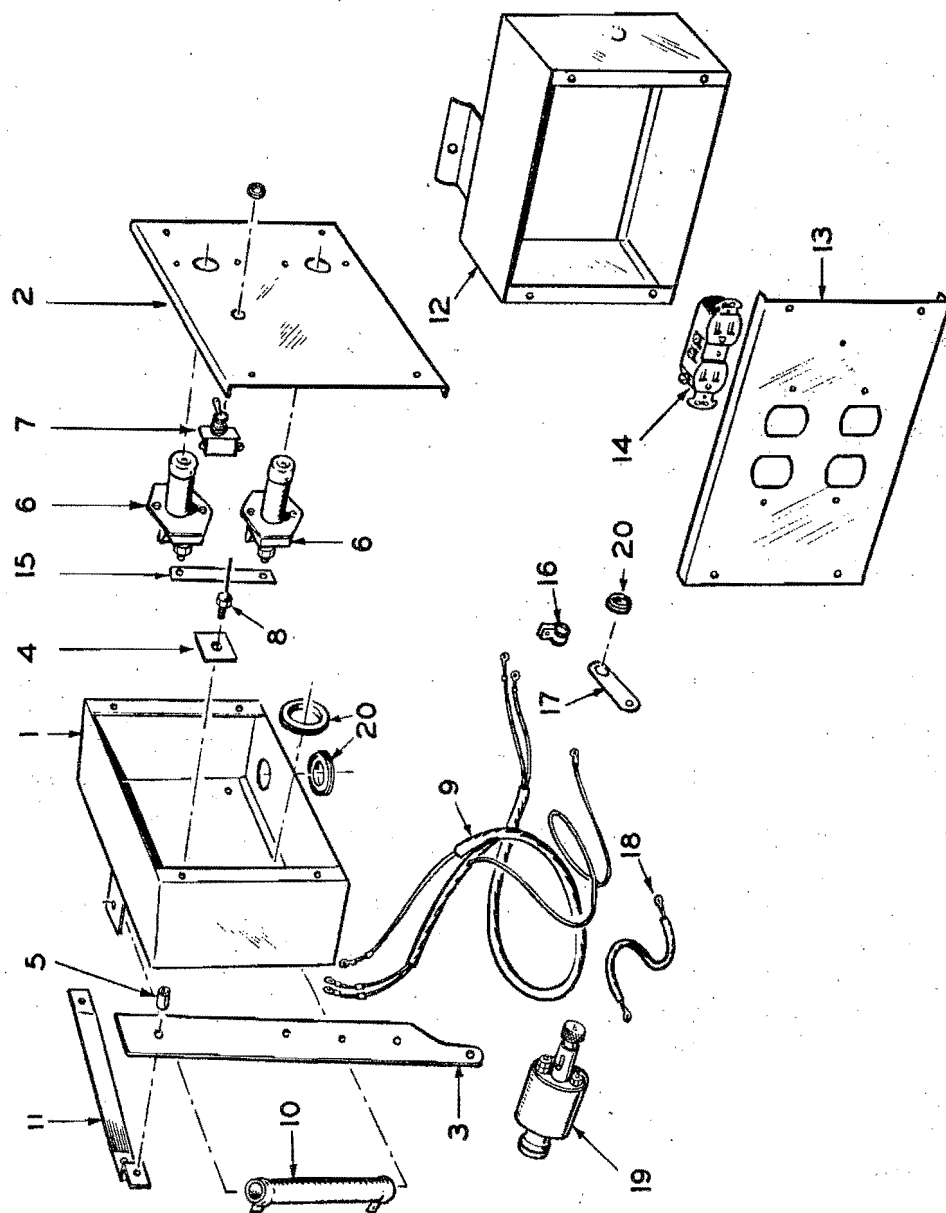
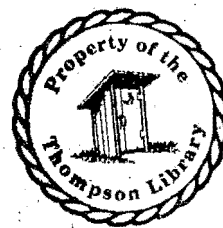


FIG. 20—CONTROL GROUP (SPECIAL PARTS GROUP)



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 1 - CRANKCASE AND GEAR COVER GROUP			
1	101K341	2	Bearing Kit, Crankshaft - Front and Rear - Includes Thrust Washer and 2 Lock Pins - Precision Type - Bronze Faced - Specify: Standard Size, .002", .010", .020", or .030" Undersize.
2	101B373	1	Bearing, Camshaft - Front - Precision (Replaces 101A70)
3	101A367	1	Bearing, Camshaft - Rear - Precision (Replaces 101A50)
4	509-19	1	Seal, Oil - <b>Crankshaft Front.</b>
5	103C177	1	Cover Assembly, Gear - Includes Cover, Governor Arm and Shaft, Oil Seals, Yoke, Needle Bearings, Governor Spring and Bracket, Adjusting Studs and Governor Cup Drive Pin.
6	103B36	1	Gasket, Gear Cover.
7	110D1047	1	Block, Cylinder.
8	110K1136	1	Gasket Kit, Cylinder Base.
10	403A95	1	Bolt, Eye - Lifting.
11	517-48	1	Plug, Expansion - Camshaft - 1-5/8" diameter.
12	502-29	1	Bushing, Pipe Reducer - 1/4 x 1/8 Brass - <b>Oil Gauge.</b>
13	520A118	4	Stud, Flywheel Housing.
14	101D107	1	Housing, Flywheel.
14A			Adapter, Generator.
	231D80	1	For plants with Parts Key Nos. 1, 2, 3, 4, 5 and 7.
	231D42	1	For plants with Parts Key No. 6.
15	516A72	2	Pin, Bearing Lock.
16	520A339	4	Stud, Generator Adapter - 3/8" x 2".
17	193-6	1	Gauge, Oil Pressure.
18	502-53	1	Elbow, Street - 45° - Oil Gauge.
20	805-18	8	Bolt, Place - Bearing Plate.
21	520A9	3	Stud, Gear Cover - 5/16" x 1-13/16".
23	101K116	1	Gasket Kit, Rear Bearing Plate.
24	101C268	1	Plate Only, Rear Bearing.
25	509P64	1	Seal, Oil - Crankshaft Rear.
26	101A308	1	Crankcase Assembly, - Includes Bearing Plate, Bearings, Pin and Plugs.
27	516-130	1	Pin, Roll - Governor Cup Stop (Located in gear cover.).
29	505-275	1	Nipple, Pipe - 1/2 x 8" - Oil Drain - Prior to Spec C.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 1 - CRANKCASE AND GEAR COVER GROUP (Cont.)			
30	505-100	1	Nipple, Pipe Close - 1/2" - Oil Drain - (Optional) - Prior to Spec C.
31	504-11	1	Valve - 1/2" - Oil Drain - Prior to Spec C.
32	510P14	1	Ball, Bearing - Governor Shaft.
33	510A8	1	Bearing, Needle - Governor Shaft (Small).
34	150A229	1	Collar, Governor Shaft.
35	510P13	1	Bearing, Needle - Governor Shaft (Large).
36	509P8	1	Seal, Oil - Governor Shaft.
37	150A671	1	Arm and Shaft, Governor.
38	526-140	1	Washer, Governor Yoke.
39	518-129	1	Ring, Yoke Retaining.
40	150A620	1	Yoke Assembly, Governor - Includes Yoke, Washer and Retaining Ring.
42	150A207	1	Stud, Governor Spring Sensitivity Adjustment.
45	110A445	2	Nut Hex Full - Gear Cover Stud - Hardened - 5/16-24.
46	Local Source	1	Hose, Oil Drain - (Optional) - Prior to Spec C.
47	Local Source	1	Clamp, Hose - Oil Drain - (Optional) - Prior to Spec C.
48	505-14	1	Coupling, Pipe - 1/2" - Oil Drain - Begin Spec C.
49	505-56	1	Plug, Pipe - 1/2" - Oil Drain - Begin Spec C.
50	505-143	1	Nipple, Pipe - 1/2" x 6-1/2" - Oil Drain - Begin Spec C.
51	505-50	1	Elbow, Street - 1/2" - Oil Drain - Begin Spec C.
	815-154	1	Screw, Socket Head Set - #10-32 x 3/16" - Governor Shaft Collar.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 2 - CAMSHAFT GROUP			
1	150A78	1	Ring, Snap - Center Pin.
2	150B612	1	Cup, Governor.
3	510-15	10	Flyball, Governor.
4	150B85	1	Spacer, Ball.
5	150A77	1	Plate, Governor Ball.
6	150A75	1	Pin, Camshaft Center.
7	105-178	1	Camshaft - Includes Center Pin.
8	515-1	1	Key, Camshaft Gear.
9	105-74	1	Gear Set - Includes Cam and Crank Gears (Listed also in Crankshaft and Flywheel Group).
10	105A42	1	Washer, Camshaft Thrust.

FIG. 3 - CRANKSHAFT AND FLY WHEEL GROUP

1	104B252	1	Dog, Crank.
2	134C813	1	Hub, Blower Wheel.
3	134C787	1	Wheel, Blower.
4	518-16	1	Ring, Snap - Crankshaft Gear Retainer.
5	105-74	1	Gear Set - Includes Crank and Cam Gears (Listed also in Camshaft Group).
6	515-1	1	Key, Crankshaft Gear.
7	104A189	1	Crankshaft.
8	515-90	1	Key, Flywheel.
9	104A95	1	Washer, Crankshaft Gear Retainer.
10	104C60	1	Flywheel.
11	516-116	2	Pin, Roll - Blower Wheel.
12	516-64	2	Pin, Groove - Flywheel - 5/16" x 1-1/8".



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 4 - PISTON AND CONNECTING ROD GROUP			
1	113-91	1	Ring Set, Piston - Includes (1) #113A43, (2) #113A15, and (1) #113A49 - Specify: Standard or, .010", .020", .030", or .040" Oversize - (Note # 113K55 will work).
2	112-82	1	Piston and Pin Assembly - Specify: Standard or, .010", .020", .030", or .040" Oversize.
3	112A16	1	Pin, Piston - Specify: Standard or .002" Oversize.
4	112A19	2	Retainer, Piston Pin.
5	114B52	1	Rod, Connecting - Includes Bushing and Bearings - Specify: Standard or .002", .010", .020", or .030" Undersize.
7		1	Ring, Top Compression - Use 113-91
8		2	Ring, Compression - Use 113-91.
9		1	Ring, Oil Control - Use 113-91.
10	114A54	2	Bushing, Connecting Rod - To Wrist Pin - Semi-Finished.
11	114B53	2	Bearing Half, Connecting Rod - Precision Type - Specify: Standard or .002", .010", .020" or .030" Undersize.
12	805-20	2	Bolt, Place - Connecting Rod - 3/8-24 x 1-1/2".

FIG. 5 - CYLINDER HEAD, VALVE AND ROCKER BOX GROUP

1	110A1063	1	Head Assembly, Cylinder - Includes Valve Guides and Seats.
2	110A1043	2	Guide, Valve.
3	110A343	1	Insert, Valve Seat - Exhaust - Specify: Standard, .005", or .025" Oversize.
4	110A1048	1	Gasket, Cylinder Head - Copper
5	520A549	4	Stud, Cylinder - 1/2 x 7-7/8".
6	110A419	1	Gasket, Nozzle Heat Shield to Head.
7	147A44	1	Shield, Nozzle Heat - Prior to Serial #661545 during Spec D.
7	147A97	1	Spacer, Nozzle - Begin Serial #661545 during Spec D.
8	147A43	1	Gasket, Nozzle Adapter to Heat Shield.
9	147B78	1	Adapter, Nozzle.
10	147B81	1	Nozzle and Holder Assembly.
11	147-16	1	Nozzle Only - Component of Nozzle and Holder Assembly.
12	147-12	1	Gasket, Nozzle Holder - Copper - Component of Nozzle and Holder Assembly.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 5 - CYLINDER HEAD, VALVE AND ROCKER BOX GROUP (Cont.)			
13	147-33	2	Gasket, Nozzle Holder Cap - Copper - Component of Nozzle and Holder Assembly.
14	110A236	2	Spring, Valve.
15	110A501	4	Lock, Valve Spring Retainer.
16	110A1038	2	Washer, Valve Spring Retainer.
17	110A1041	1	Valve, Exhaust.
18	110A1042	1	Valve, Intake.
19	115A103	2	Rod, Push - Valve.
20	115B96	2	Tappet, Valve.
21	115A102	2	Shield, Push Rod.
22	509P18	5	Seal, "O" Ring - 7/8" O.D. x 3/32" Diameter - (4) Push Rod Shield, (1) Release Assembly to Rocker Box.
23			Box, Rocker.
	115D97	1	Spec. A Models Only.
	115D119	1	Begin Spec. B.
24	115A104	1	Gasket, Rocker Box to Head.
25	115A109	1	Gasket, Rocker Box Cover.
26	115C100	1	Cover, Rocker Box.
27	526-65	5	Washer, Flat - Copper - (2) Rocker Box Cover, (3) Rocker Box Mounting.
28	115A107	1	Arm, Exhaust Rocker - Includes Needle Bearing and Screws.
29	115A108	1	Arm, Intake Rocker - Includes Needle Bearing and Screw.
30	510-51	2	Bearing, Needle - Rocker Arm.
31	815-87	1	Screw, Set - Compression Release Adjusting - 1/4-20 x 1-1/2" hardened.
32	115P91	2	Screw, Rocker Arm to Push Rod Adjustment - (Valve Clearance) - Self Locking.
33	115A106	1	Shaft, Rocker Arm.
34	115A113	1	Bracket, Rocker Arm Shaft Mounting.
35	518-7	2	Ring, Retaining - External - Rocker Arm to Shaft.
36	115A105	2	Washer, Rocker Arm.
37	502-2	1	Elbow, Inverted Male - 400 x 4 - Rocker Box Oil Drain.
38			Solenoid Assembly, Decompression Release.
	306C49	1	For Plants with Parts Key Nos. 1, 2 and 3 - 12 Volt Grounded.
	306C91	1	For Plants with Parts Key No. 4 - 32 Volt Grounded.
	306C94	1	For Plants with Parts Key No. 7 - 32 Volt Ungrounded.
	306C146	1	For Plants with Parts Key No. 6 - 24 Volt Ungrounded.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 5 - CYLINDER HEAD, VALVE AND ROCKER BOX GROUP (Cont.)			
39	306A145	1	Plunger and Retainer, Solenoid - Includes Plunger, Guide, Spring and Retainer - For Plants with Parts Key Nos. 1, 2, 3, 4, 6 and 7.
40	509-31	1	Seal, "O" Ring - Solenoid Plunger - 1/2" O.D. - For Plants with Parts Key Nos. 1, 2, 3, 4, 6 and 7.
41	516-54	1	Pin, Groove - #3 - 5/64 x 3/8" - Solenoid Plunger - For Plants with Parts Key Nos. 1, 2, 3, 4, 6 and 7.
42	110B626	1	Release Assembly, Compression - For Plants with Parts Key No. 5.
43	110A376	1	Adapter, Shaft - For Plants with Parts Key No. 5.
44	Describe	1	Bracket, Compression Release Stop - For Plants with Parts Key No. 5.
45	Describe	1	Shaft, Compression Release - For Plants with Parts Key No. 5.
46	518-115	1	Ring, Snap - Release - For Plants with Parts Key No. 5.
47	190A66	1	Spring, Compression Release - For Plants with Parts Key No. 5.
48	333A37	1	Plug, Glow - With Gasket - Note #333K14 will work.
49	110A546	1	Gasket, Glow Plug.
50	110A1158	2	Spacer, Valve Spring - Begin Spec B.
51	520A554	2	Stud, Rocker Box and Cover Mounting - 5/16 x 3-9/16".
	866-3	2	Nut, Hex Cap - 5/16-18 - Rocker Box Cover.
	860-15	2	Nut, Hex Head - Hardened - 5/16-18 - Rocker Box.
	526A35	4	Washer, Flat - Cylinder Head.
	110A707	4	Nut, Hex - 1/2-20, Hardened - Cylinder Head.
	860-13	1	Nut, Hex - 1/4-20 - Compression Release Screw.
	800-28	1	Screw, Hex Head Cap - 5/16-18 x 1" - Rocker Box to Head.
	800-34	2	Screw, Hex Head Cap - 5/16-18 x 2-1/4" - Nozzle Holder.
	800-53	2	Screw, Hex Head Cap - 3/8-16 x 1-3/4" - Rocker Arm Shaft Bracket.
	803-36	1	Screw, Socket Head Set - 1/4-20 x 5/8" - Solenoid Retaining.
	850-45	2	Washer, Lock - 5/16" - Nozzle Holder.
	850-50	2	Washer, Lock - 3/8" - Rocker Arm Shaft Bracket.
	147K101	1	Conversion Kit - Pre-Cup Spacer - Nozzle.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 6 - MUFFLER AND EXHAUST GROUP			
1	154C464	1	Manifold, Exhaust - "L" Shaped.
2	154A460	1	Gasket, Exhaust Manifold to Head.
3	155C570	1	Adapter, Muffler to Exhaust Manifold - "U" Shaped.
4	154A133	1	Gasket, Muffler Adapter to Exhaust Manifold.
5	520A553	2	Stud, Exhaust Manifold - 3/8 x 2-1/4".
6	155A572	1	Clamp, Muffler.
7	155B330	1	Muffler, Exhaust.
9	155B492	1	Tube, Flexible Exhaust.
10	505-31	1	Coupling, Pipe - 1-1/4" - Exhaust Tube.
	800-53	2	Screw, Hex Head Cap - 3/8-16 x 1-3/4" - Muffler.
FIG. 7 - HOUSING AND MOUNTING GROUP			
1	110D1058	1	Cover, Cylinder Head - Front - Spec A Models Only.
2	110D1059	1	Cover, Cylinder Head - Rear - Spec A Models Only.
3	147C79	1	Cover, Injection Nozzle - Spec A Models Only.
4	134D814	1	Scroll, Blower Housing.
4A	134D966	1	Spec A Models Only.
5	517-22	7	Begin Spec B.
6	870-65	7	Button, Dot - 3/4" - Spec A Models Only.
			Nut, Huglock - 1/4-20 - Blower Housing Scroll.
			Housing, Plenum Chamber.
7	405E1068	1	Spec A Models Only (Includes Studs).
7A	134E973	1	Begin Spec B.
8	134B794	1	Shroud, Cylinder Air - Oil Fill Side (Left Upper - Spec A Models Only).
9	134D971	1	Shroud, Cylinder Air - Begin Spec B.
10	134B793	1	Shroud, Cylinder Air - Push Rod Side (Right) - Spec A Models Only.
11			Plate, Cylinder Air Baffle.
	134C792	1	Spec A Models Only.
	134C974	1	Begin Spec B.
12	403B456	2	Bar, Mounting Base - Prior to Spec C.
13	403B497	1	Cross Member, Mounting Base - Prior to Spec C.
14	403B503	2	Foot, Mounting Base - Left Hand - Oil Fill Side - Prior to Spec C.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 7 - HOUSING AND MOUNTING GROUP (Cont.)			
15	403B502	2	Foot, Mounting Base - Right Hand - Push Rod Side - Prior to Spec C.
16	402A103	4	Cushion Assembly, Mounting - Cylindrical Shaped - Includes Cushions and Hardware.
	402A216	4	Prior to Spec C.
	402A36	8	Begin Spec C.
17			Cushion, Rubber Mounting - Cylindrical Shaped - Upper & Lower - NOTE: 4 Only used Upper
			Prior to Spec C.
18	402A38	4	Cushion, Rubber Mounting - Cylindrical Shaped - Lower - Prior to Spec C.
19			Bushing, Spacer - Plant Mounting - Use with Cylindrical Shaped Mounts -
			Prior to Spec C.
	402A46	4	Begin Spec C.
	402A72	4	Hood, Rain.
20	405D1091	1	Support, Rain Hood - Engine End.
21	405C1113	1	Support, Rain Hood - Generator End.
22	405C1112	1	Plate, Scroll Cover - Begin Spec B.
23	134D923	1	Cap, Plenum Chamber - Begin Spec B.
24	134C972	1	Angle, Mounting - Left Hand - Begin Spec C - Use with Cylindrical Shaped Mounts.
25	403B573	1	Angle, Mounting - Right Hand - Begin Spec C - Use with Cylindrical Shaped Mounts.
25	403B574	1	Cup, Mount Alignment - Begin Spec C - Use with Cylindrical Shaped Mounts.
26	402A94	4	Stud, Angle Mounting - Begin Spec C.
27	520A580	6	Conversion Kit, Cone Shaped Vibration Mounts - Optional - Includes Parts Marked ▲ Plus Hardware
28	402K330	1	▲Screw, Cap - 7/16-14 x 4" - Use with Cone Shaped Mounts - Optional.
29	104A170	4	▲Snubber, Shock Mounting - Rebound - Use with Cone Shaped Mounts - Optional.
30	402A282	4	▲Cushion, Vibration - Cone Shaped - Optional.
31	402A285	4	▲Bushing, Spacer - Vibration Mount - Use with Cone Shaped Mounts - Optional.
32	402A328	4	▲Angle Mounting Assembly - Left Hand - Use with Cone Shaped Mounts - Optional.
33	403B721	1	▲Angle Mounting Assembly - Right Hand - Use with Cone Shaped Mounts - Optional.
34	403B722	1	▲ - Parts contained in Conversion Kit # 402K330.

FIG. 8 - FUEL TRANSFER PUMP PARTS GROUP

149D693	1	Pump, Fuel Transfer.
149K526	1	Repair Parts Kit, Fuel Transfer Pump - Includes Parts Marked (*).
1	1	Body - Upper - Not Sold Separately.
2	4	Screw, Hex Head - #8-32 x 7/8" - Pump Assembly.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 8 - FUEL TRANSFER PUMP PARTS GROUP (Cont.)			
3	815-147	2	Screw, Valve Retainer - Flat Heat - #6-32 x 5/8".
4	149-96	2	*Valve and Cage.
5	149A95	2	*Gasket, Valve.
6	149A582	1	*Diaphragm Assembly.
7	149A672	1	*Spring, Diaphragm.
8	149A539	1	Retainer, Valve Cage.
9	149A675	1	*Spring, Rocker Arm.
10	516A113	1	Pin, Rocker Arm.
11		1	Body, Lower - Not Sold Separately.
12, 13	149A710	1	Arm and Link Set, Rocker.
14	149A551	1	Lever, Hand Primer.
15	509-65	2	Seal, "O" Ring - Priming Lever.
16	149A404	1	Spring, Priming Lever.
17	149A3	1	*Gasket, Pump Mounting.
18	518-129	1	Ring, Retainer - Hand Primer Lever.
19	149A858	1	Gasket, Diaphragm - Lower Side.
			* - Parts contained in Repair Kit #149K526.

FIG. 9 - FUEL SYSTEM GROUP

1	415A126	1	Tank Assembly, Fuel.
2	504A16	1	Valve Assembly, Fuel Tank - Straight, Inverted.
3	501A27	1	Line, Flexible - Nozzle to Tank.
4	501A9	1	Line, Flexible - Tank to Filter.
5	415B124	1	Cap, Rain - Fuel Tank - With provision for return line.
6		1	Nozzle Only - Listed also in Cylinder Head Group.
7		1	Nozzle Assembly - Listed also in Cylinder Head Group.
8	149B686	1	Pipe Assembly, Fuel - Injection Pump to Nozzle.
9	147C25	1	Pump Assembly, Injection.
10	509-21	1	"O" Ring, Injection Pump to crankcase.
11	520A456	2	Stud, Injection Pump Mounting - 5/16" x 2-1/2"

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 9 - FUEL SYSTEM GROUP (Cont.)			
12	115A111	1	Tappet, Injection Pump.
13	502-2	2	Elbow, Inverted Male - Transfer Pump Inlet, Fuel Return Line.
14		1	Pump Assembly, Fuel Transfer - Listed also in Fuel Transfer Pump Group.
15		1	Gasket, Fuel Transfer Pump Mounting - Listed also in Fuel Pump Group.
16	147-4	2	Ring, Coupling - Fuel Pipe.
17	147-3	2	Nut, Fuel Pipe Coupling.
18	149B426	1	Filter Assembly, Primary Fuel.
19	149P494	1	Gasket, Fibre - Primary Filter Element to Cover.
20	149P439	1	Gasket, Neoprene - Primary Filter Bowl to Cover.
21	149P438	1	Element, Primary Filter - Brass Disc Permanent Type - Order Gaskets Separately.
22	149A667	1	Bracket, Primary Fuel Filter Mounting.
23	868-7	1	Nut, Hex Jam - 5/8-18"
24	854-28	1	Washer, Internal Tooth - 5/8" - Mounting Primary Filter.
25	149A430	1	Elbow - With Strainer - Injection Pump Inlet.
26	149B697	1	Line, Fuel - Primary Filter to Fuel Transfer Pump.
27	147P58	1	Washer Kit, Injection Pump Control Sleeve - Includes (2) Washers, (1) "O" Ring, and (2) Snap Ring.
28	520A29	2	Stud, Secondary Filter Mounting - 1/4" x 1".
29	149P456	1	Gasket, Secondary Filter - Bowl to Cover - Permanently cemented in place.
30	149P455	1	Gasket, Secondary Filter - Cartridge to Head - Permanently cemented in place.
31	149P493	1	Gasket, Secondary Filter - Cartridge to Retainer.
32	149C408	1	Filter Assembly, Secondary Fuel.
33	149P428	1	Cartridge, Secondary Fuel Filter.
34	149B665	1	Bracket, Secondary Fuel Filter Mounting.
35	502-54	1	Elbow, Street - Secondary Filter Outlet.
36	502-33	1	Connector, Inverted Male - Secondary Filter Inlet.
37	502-3	3	Connector, Inverted Male - Transfer Pump, Primary Filter Outlet, Fuel Return Line.
38	149A696	1	Line, Fuel - Transfer Pump to Secondary Filter.
39	501A63	1	Line, Flexible Fuel - Secondary Filter to Injection Pump.
40	502-20	1	Elbow, Street - Fuel Return Line to Nozzle.
	526-63	2	Washer, Copper - Fuel Pump Mounting.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 10 - GEARED HAND-CRANKING STARTER AND CONVENTIONAL CRANK GROUP			
NOTE: Starter is standard equipment for plants with Parts Key Nos. 4, 6 and 7. It fits all plants. Conventional Hand Crank is standard equipment for plants with Parts Key Nos. 1, 2, 3 and 5.			
1	192C306	1	Starter Package - Geared, Hand-Cranking - Complete - Prior to Spec C.
1	192C334	1	Starter Package - Geared, Hand-Cranking - Complete - Begin Spec C.
2	192B246	1	Starter Assembly, Geared Hand-Cranking - Includes Parts Marked (*) & (†) Prior to Spec C.
2	192B333	1	Starter Assembly, Geared Hand-Cranking - Includes Parts Marked (†) & (▲) Begin Spec C.
1	192C297	1	*Adapter Only, Crank - Prior to Spec C.
1	192C330	1	▲Adapter Only, Crank - Begin Spec C.
2	192C229	1	*Cover, Crank Adapter - Prior to Spec C.
2	192C331	1	▲Cover, Crank Adapter - Begin Spec C.
3	192B299	1	† Gear and Shaft, Crank Dog Engaging.
4	516-99	1	† Pin, Roll - Crank Dog Engaging - 1/4" x 1" Long.
5	192A235	1	† Gear and Shaft, Driver - Hand Crank Engaging.
6	192A237	1	† Gear and Shaft, Idler.
7	192B239	1	† Gasket, Cover to Adapter.
8	192A242	1	† Spring, Disengaging.
9	192A243	1	† Button, Engaging.
10	192B256	1	Crank, Hand-Geared Starter.
11	192C304	1	Bracket, Crank Adapter - Prior to Spec C.
11	192D326	1	Bracket, Crank Adapter - Begin Spec C.
12	192A29	1	Crank, Conventional Hand - For Plants with Parts Key Nos. 1, 2, 3 and 5.
13	192C317	1	Bracket, Conventional Hand Crank - For Plants with Parts Key Nos. 1, 2, 3 and 5.
	192C329	1	Prior to Spec C.
			Begin Spec C.

FIG. 11 - OIL SYSTEM GROUP

1	503-325	1	Hose, Breather - 7/16" I.D. - Neoprene.
2	123A191	1	Gasket, Oil Filler Cap.
3	123A315	1	Valve Assembly, Check - Breather Tube.
4	122C56	1	Filter Assembly, Oil - Includes Cartridge.
5	122-47	1	Screw, Oil Filter Cover Cap.
6	122-48	1	Washer, Oil Filter Cover Cap Screw.
7	122-35	1	Cover Assembly, Oil Filter.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 11 - OIL SYSTEM GROUP (Cont.)			
8	122-36	1	Gasket, Oil Filter Cover.
9	122-37	1	Cartridge, Oil Filter Replacement - Includes Gasket.
10	122B30	1	Gasket, Oil Filter Bracket Mounting.
11	120B476	1	Line, Oil - Rocker Box Drain.
12	520A11	5	Stud, Oil Filter Bracket Mounting - 5/16" x 1-7/16".
13	120K161	1	Gasket Kit, Oil Pump - Includes Mounting and Assembly Gaskets.
14	120A457	1	Pump Assembly, Oil.
15	120A480	1	Cup Assembly, Oil Suction.
16	123B553	1	Indicator Assembly, Oil Level.
17	123A313	1	Tube Assembly, Oil Fill.
18	123A298	1	Tube, Breather.
19	123A346	1	Gasket, Breather Tube Cap.
20	122B151	1	Bracket, Oil Filter Mounting - Also mounts breather and oil fill tube (Replaces #122D76).
21	505-8	1	Plug, Pipe - Slotted Head - Bracket - 1/8" x 1/4".
22	120A225	1	By-Pass Assembly, Oil.
23	502-99	1	Elbow, Reducing - By-Pass.
24	123A549	1	Cap, Breather Tube.
24A	870-152	1	Palnut, 1/2"-20 - Tube to Breather Cap
24B	140A321	1	Tube, Breather Cap - Metal
25	123-452	1	Baffle, Breather Tube.
26	123A347	1	Spacer, Breather Valve.
27	502-3	2	Connector, Inverted Male - Oil Drain Lines.
28	502-2	2	Elbow, Inverted Male (1) Pressure Line, (1) Drain Line.
29	122A64	1	Line, Oil Filter Pressure.
30	122A65	1	Line, Oil Filter Drain.
31	120A221	1	Spring, Oil By-Pass.
32	526-65	1	Washer, Flat - Copper - Mounting Filter Bracket.
33			Switch, Oil Pressure - Decompression Release Solenoid Cut-In.
	309P104	1	For plants with Parts Key Nos. 1, 2, 3, and 4. (One wire, for grounded system.)
	309P105	1	For plants with Parts Key Nos. 6 and 7. (Two wire, for ungrounded system.)
34	502-1	1	Tee, Adapter - Oil Pressure Switch Mounting at Filter Inlet.
35	120A182	1	Capscrew, Oil Pump Mounting - Special (Shoulder Type).

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 12 - GOVERNOR GROUP			
1	150A639	1	Joint, Ball.
2	150A368	1	Link, Governor.
3	518-4	1	Clip, Governor Link End.
4	150A369	1	Linkage Assembly.
5	870-53	1	Nut, Hex - #10-32 - Link to Ball Joint.
5A	870-131	1	Nut, Lock - #10-32 - Ball Joint to Arm.
5B	870-53	1	Nut, Hex - #10-32 - Speed Adjusting Stud.
5C	150A398	1	Nut, Spherical Face - Speed Adjusting Stud.
6	150B7	1	Box, Governor Spring Mounting.
7	150A47	1	Cover, Governor Spring Mounting Box.
8	150A96	1	Stud, Governor Adjusting.
9	150A98	1	Spring, Governor.

FIG. 13 - ANTI-FLICKER GROUP (AC MODELS)  
(For plants with Parts Key Nos. 1, 2, 3 and 4)

1	166B270	1	Breaker Assembly, Anti-Flicker - Complete with Point Set & Plunger.
2,3,4	166B269	1	Plate, Breaker - Anti-Flicker.
2	160A584	1	Plunger, Breaker - Anti-Flicker - Includes Plunger, Guide and Diaphragm.
3	160A263	1	Diaphragm, Breaker Plunger.
5	160A513	1	Point Set, Anti-flicker - Includes Two Stationery Points with #8-32 Thread.
6	166A49	1	Dampener, Breaker Spring.
7	166A67	1	Strip, Breaker Spring Hold-down.
8	160B614	1	Cover, Breaker Plate.
9	160A515	1	Gasket, Breaker Plate Cover.
10			Lead, Shielded - Anti-Flicker Points to Control Box - Component of wiring harness.
11	332A593	1	Strip, Terminal.
	854-7	2	Washer, Lock - Internal Tooth - #8 - Anti-Flicker Breaker Points.
	812-79	2	Screw, Round Head Machine - #8-32 x 1/2" - Anti-Flicker Breaker Points.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 14 - AIR CLEANER AND HEATER GROUP			
NOTE: Glow Plug appears in Cylinder Head Group.			
1	140B166	1	Heater, Air Intake - Complete
	140B275	1	For plants with Parts Key Nos. 1, 2 and 3.
	140B423	1	For plants with Parts Key Nos. 4, 5 and 7.
2	140A156	1	For plants with Parts Key No. 6.
3	140B488	1	Gasket, Heater Mounting.
4	154A460	1	Adapter, Air Cleaner - With provision for heater.
5	154C469	1	Gasket, Intake Manifold to Head.
6	520A553	2	Manifold, Air Intake.
7	154A104	2	Stud, Intake Manifold - 3/8 x 2-1/4".
8	154A105	1	Gasket, Air Cleaner Adapter to Manifold.
9	140B495	1	Screen, Air Cleaner Adapter to Manifold.
10	149A157	1	Cartridge only, Air Cleaner.
11	140B490	1	Gasket, Air Cleaner to Adapter.
12	140B489	1	Base, Air Cleaner - Inner.
13	520A569	1	Plate, Air Cleaner - Outer.
14	865-11	1	Stud, Air Cleaner.
			Nut, Wing - #10-32.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 15 - CONTROL PANEL GROUP			
1			Resistor, Fixed.
	304P32	1	For plants with Parts Key Nos. 1, 2 and 3 (Decompression Solenoid) 15 Ohm, 10 Watt.
	304A33	1	For plants with Parts Key Nos. 1, 2 and 3 (High Charge Rate Circuit) 1.5 Ohm, 50 Watt.
	304A44	1	For plants with Parts Key Nos. 1, 2 and 3 (Low Charge Rate Circuit) 2.5 Ohm, 50 Watt.
	304A262	1	For plants with Parts Key No. 4 (Glow Plug) 50 Ohm, 10 Watt.
	304A257	1	For plants with Parts Key No. 4 (Low Charge Rate Circuit) 75 Ohm, 25 Watt.
	304A45	1	For plants with Parts Key No. 4 (3/4" x 4") 4 Ohm, 50 Watt.
	304-240	1	For plants with Parts Key No. 5 (Off Pre Heat Relay in Wall Mounted Box) 600 Ohm, 25 Watt.
	304A161	1	For plants with Parts Key No. 5 (Off Start Solenoid in Wall Mounted Box) 250 Ohm, 25 Watt.
	304A11	1	For plants with Parts Key No. 6 (Decompression Solenoid) 50 Ohm, 25 Watt.
	304A112	1	For plants with Parts Key No. 7 (Decompression Solenoid) 100 Ohm, 25 Watt.
2			Resistor, Adjustable - Anti-Flicker.
	304A175	1	For plants with Parts Key Nos. 1, 2 and 3 (1-Ohm, 50 Watt) - Replaces 304A51.
	304A16	1	For plants with Parts Key No. 4 (2.5 Ohm, 50 Watt).
3	304B428	1	Resistor, Cone Type (Manifold Heater) For plants with Parts Key No. 5 (13.87 Ohm, 600 Watt).
4	312A57	1	Condenser, Anti-Flicker (1. Mfd.) For plants with Parts Key Nos. 1, 2, 3 and 4 (Not used on Spec 2236 Models).
5			Harness Assembly, Wiring.
	338B190	1	For plants with Parts Key Nos. 1, 2 and 3.
	338B194	1	For plants with Parts Key No. 4.
	338B204	1	For plants with Parts Key No. 6.
	338B196	1	For plants with Parts Key No. 7.
5A	335B37	1	For plants with Parts Key No. 5 (Cables and Conduit).
6	308-37		Switch, Pre-heat.
7			Relay, Reverse Current.
	307B180	1	For plants with Parts Key Nos. 1, 2 and 3.
	307B496	1	For plants with Parts Key No. 4.
	307B84	1	For plants with Parts Key No. 5.
7A	307B7	1	For plants with Parts Key No. 6.
	307B361	1	For plants with Parts Key No. 7.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 15 - CONTROL PANEL GROUP (Cont.)			
9			Ammeter, Charge.
	302A58	1	For plants with Parts Key Nos. 1, 2 and 3 (10-0-10).
	302A61	1	For plants with Parts Key No. 4 (30-0-30).
	302A64	1	For plants with Parts Key Nos. 6 and 7 (100-0-100).
10	308P7	1	Switch, Hi-Low Charge Rate - For plants with Parts Key Nos. 1, 2, 3 and 4.
11	308-26	1	Switch, Start-Stop - For plants with Parts Key Nos. 1, 2, 3, 4, 6, and 7.
12	308A29	1	Switch, Start - For plants with Parts Key No. 5.
13			Rheostat.
	303-102	1	For plants with Parts Key No. 5 (Replaces 303-8)
	303-46	1	For plants with Parts Key No. 6.
	303-10	1	For plants with Parts Key No. 7.
14			Knob, Rheostat.
	303-32	1	For plants with Parts Key No. 5.
	303-47	1	For plants with Parts Key Nos. 6 and 7.
15			Box Only, Control.
	301D1584	1	For plants with Parts Key Nos. 1, 2, 3 and 4.
	301D1401	1	For plants with Parts Key No. 6.
	301D1587	1	For plants with Parts Key No. 7.
	301C1692	1	For plants with Parts Key No. 5 (Start-Switch Box) Plant Mounted.
15A	301C930	1	For plants with Parts Key No. 5 (Battery Charging Box) Wall Mounted.
			Bracket, Control Box Mounting.
16	301B1585	2	For plants with Parts Key Nos. 1, 2, 3, 4 and 7.
16A	301B1678	1	For plants with Parts Key No. 5 (For Mounting Start-Switch Box).
16B	301B1403	1	For plants with Parts Key No. 6.
17	301B1573	1	Bracket, Control Box Mounting Support - For plants with Parts Key Nos. 1, 2, 3, 4 and 7.
18			Box, Junction.
	301C1590	1	For plants with Parts Key Nos. 1, 2, 3 and 4.
	301D1593	1	For plants with Parts Key No. 7.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 15 - CONTROL PANEL GROUP (Cont.)			
19			Cover, Junction Box.
	301B1589	1	For plants with Parts Key No. 3.
	301B1594	1	For plants with Parts Key No. 7.
19A	301B1392	1	Panel, Receptacle - For plants with Parts Key Nos. 1, 2 and 4.
20			Receptacle, Duplex - Grounding Type.
	323P184	2	For 120 Volt plants with Parts Key No. 1 and Parts Key No. 4.
	323-213	2	For 240 Volt plants with Parts Key No. 1.
	323P184	1	For plants with Parts Key No. 2 (120 Volt connections).
	323-213	1	For plants with Parts Key No. 2 (240 Volt connections).
	402-78	4	Cushion, Control Mounting - Rubber.
22	332A602	1	Strap, Jumper - Solenoid - For plants with Parts Key Nos. 1, 2 and 3.
23	332-53	2	Clip, Harness (Tinnerman).
24	332A572	1	Clip, Harness (Steel).
25	160A144	2	Strap, Resistor Jumper - For plants with Parts Key Nos. 1, 2, 3 and 4.
26	301B1404	1	Bracket, Rheostat Mounting - For plants with Parts Key No. 6.
27	304A185	1	Block, Resistor Insulating - For plants with Parts Key No. 5.
28	336A1174	1	Lead, Glow Plug.
29	301A820	1	Bracket, Resistor Block Mounting - For plants with Parts Key No. 5.
30			Relay, Pre-Heat.
32	307B81	1	For plants with Parts Key No. 4.
33	307B363	1	For plants with Parts Key No. 6.
	307B247	1	For plants with Parts Key Nos. 5 and 7.
34	321P7	1	Post, Fuse - For plants with Parts Key Nos. 5, 6 and 7.
35	321-17	1	Block, Fuse - For plants with Parts Key No. 5 (In Wall Mounted Box).
			Fuse.
36	321-38	1	For plants with Parts Key No. 5 (10 Amp) In Plant Mounted Box.
	321-27	1	For plants with Parts Key Nos. 6 and 7 (15 Amp).
37	321-18	1	For plants with Parts Key No. 5 (40 Amp) In Wall Mounted Box.
38	307B4	1	Relay, Decompression Release Solenoid - For plants with Parts Key Nos. 1, 2, 3, 4, 6 and 7.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 15 - CONTROL PANEL GROUP (Cont.)			
39			Solenoid, Start.
	307B40	1	For Plants with Parts Key Nos. 1, 2 and 3.
	307B61	1	For Plants with Parts Key Nos. 4, 6 and 7.
	307P479	2	For Plants with Parts Key No. 5.
39	307B40	1	Solenoid, Pre-heat - For plants with Parts Key Nos. 1, 2 and 3.
			Block, Terminal -
40	332A604	1	5 Place - For plants with Parts Key Nos. 1, 2, 3 and 4.
41	332A254	2	4 Place - For plants with Parts Key No. 5 (1) Plant Mounted Box (1) Wall Mounted Box.
41	332A537	1	4 Place - For plants with Parts Key Nos. 6 and 7.
42	332A406	1	3 Place - For plants with Parts Key No. 6.
43	332A231	1	2 Place - For plants with Parts Key No. 5 (In Wall Mounted Box).
			Strip, Marker - Terminal Block.
45	332A566	1	4 Place Block (marked B+, 1, 2, 3) Note: B+ not used. For plants with Parts Key No. 6.
46	332A426	1	3 Place Block (marked 5, 6, F2) For Plants with Parts Key No. 6
47			Grommet, Rubber -
	508-9	As Req.	1" I.D. for 1-5/16" Hole.
	508-8	As Req.	1/2" I.D. for 7/8" Hole.
	508-1	As Req.	3/4" I.D. for 1-1/16" Hole.
48	301B271	1	Backplate, Control - For plants with Parts Key No. 5.
49	301C1677	1	For Wall Mounted Box (Battery Charging).
50	312A17	1	For Plant Mounted Box (Start-Switch).
51	302-355	1	Condenser (In Wall Mounted Box) For plants with Parts Key No. 5.
			Ammeter, DC Output (0-25) For Plants with Parts Key No. 5.
FIG. 16 - GENERATOR GROUP			
1			Brush, Slip Ring (AC). -
	214A50	4	For plants with Parts Key Nos. 1 and 4.
	214A62	3	For plants with Parts Key No. 2.
	214A32	3	For plants with Parts Key No. 3
2			Brush, Commutator (DC). -
	214A61	4	For plants with Parts Key No. 1, and Parts Key No. 2 - Reconnectible Models.
	214A30	4	For plants with Parts Key No. 2 (Except reconnectible models) and Parts Key No. 3.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 16 - GENERATOR GROUP (Cont.)			
3	214A9	4	For plants with Parts Key No. 4.
	214A65	4	For plants with Parts Key No. 5.
	214A68	4	For plants with Parts Key No. 7.
	214A18	4	For plants with Parts Key No. 6.
4	212B1105	4	Spring, Brush - Constant Pressure Type -
	212B1105	8	For Plants with Parts Key No. 5, and Parts Key No. 2 - Reconnectible Models.
	212B1106	4	For Plants with Parts Key Nos. 1 and 4.
	212B1106	4	For Plants with Parts Key No. 7.
5	212A1003	4	Spring, Brush - Conventional Type -
	212A1011	4	For Commutator Brush on plants with Parts Key Nos. 2 (Except Reconnectible Models) & 3.
	212A1004	3	For Commutator Brush on Plants with Parts Key No. 6.
	212A1123	4	For Slip Ring Brush on Plants with Parts Key Nos. 2 (Except Reconnectible Models) and 3.
6	232A268	1	For Slip Ring Brush on Plants with Parts Key No. 2 - Reconnectible Models, Coupling, Armature Drive.
	201A278	1	Armature Assembly - Includes Bearing and Drive Coupling. -
6	201A332	1	For 120 Volt, 60 Cycle Plants with Parts Key No. 1,
	201A375	1	For 240 Volt, 60 Cycle Plants with Parts Key No. 1.
	201A343	1	For 120 Volt, 50 Cycle Plants with Parts Key No. 1.
	201A964	1	For 240 Volt, 50 Cycle Plants with Parts Key No. 1.
	*	1	For 60 Cycle Plants with Parts Key No. 2 Except Reconnectible Models.
	201A887	1	For 60 Cycle Plants with Parts Key No. 2, Reconnectible Models.
	201A888	1	For 50 Cycle Plants with Parts Key No. 2.
	201A890	1	For 60 Cycle Plants with Parts Key No. 3.
	201A533	1	For 50 Cycle Plants with Parts Key No. 3.
	201A1057	1	For Plants with Parts Key No. 4. -
	201A952	1	Prior to Spec "D".
	201A832	1	Begin Spec "D".
	201A931	1	For Plants with Parts Key No. 5
		1	For Plants with Parts Key No. 6.
		1	For Plants with Parts Key No. 7.

\* - Order by description giving complete model number and serial number of unit.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 16 - GENERATOR GROUP (Cont.)			
7	510A47	1	Bearing, Ball - Armature.
8	232A596	1	Clip, Armature Bearing Stop.
9			Stud, Armature Thru.
	520A350	1	For Plants with Parts Key Nos. 1 and 4 - (7/16 x 16-1/8").
	520A407	1	For Plants with Parts Key Nos. 2 and 3 - (7/16 x 17-3/4").
	520A566	1	For Plants with Parts Key Nos. 5 and 7 - (7/16 x 16-3/4").
	520A394	1	For Plants with Parts Key No. 6 - (7/16 x 16-1/8").
10			Poleshoe, Field.
	221A91	4	For Plants with Parts Key Nos. 1, 2, 3 and 4.
	221A126	4	For Plants with Parts Key Nos. 5 and 7.
	221B56	4	For Plants with Parts Key No. 6.
10A			Poleshoe, Interpole.
	221A129	2	For Plants with Parts Key No. 5.
	221A77	2	For Plants with Parts Key No. 6.
	221A127	2	For Plants with Parts Key No. 7.
11			Coil Assembly, Field - Set of 4 Coils.
	222A1518	1	For Plants with Parts Key Nos. 1, 2 and 3.
			For Plants with Parts Key No. 4.
	222A1520	1	Prior to Spec "D".
	222A1568	1	Begin Spec "D".
	222A1536	1	For Plants with Parts Key No. 5.
	222A1471	1	For Plants with Parts Key No. 6.
	222A1522	1	For Plants with Parts Key No. 7.
11A			Coil Assembly, Interpole - Set of 2.
	222A1523	1	For Plants with Parts Key No. 7.
	222A1472	1	For Plants with Parts Key No. 6.
	222A1537	1	For Plants with Parts Key No. 5.
12			Frame Only, Generator.
	210D278	1	For Plants with Parts Key Nos. 1, 2, 3 and 4.
	210D296	1	For Plants with Parts Key Nos. 5 and 7.
	210D275	1	For Plants with Parts Key No. 6.

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
13	FIG. 16 - GENERATOR GROUP (Cont.)		
	Condenser		
	312A27	1	0.5 Mfd. - DC Brush Suppression For Plants with Parts Key Nos. 1, 2 (except Reconnectible Models) 3 and 4. For Plants with Parts Key Nos. 2 (Reconnectible Models) and 7.
	312A58	1	0.1 Mfd. - AC Brush Suppression. For Plants with Parts Key Nos. 1 and 4.
	312A58	2	For Plants with Parts Key No. 2 - Reconnectible Models use 3 each.
14	312A58	3	For Plants with Parts Key No. 3.
	Rig Assembly, Brush - Includes Brushes and Springs.		
	212C225	1	For plants with Parts Key No. 1.
	212C224	1	For plants with Parts Key No. 2 - Except Reconnectible Models.
	212C234	1	For plants with Parts Key No. 2 - Reconnectible Models.
	212C235	1	For plants with Parts Key No. 3.
	212C249	1	For plants with Parts Key No. 4.
	212C237	1	For plants with Parts Key No. 5.
	212C116	1	For plants with Parts Key No. 6.
	212C244	1	For plants with Parts Key No. 7.
	Bell, End.		
15	211D97	1	For Plants with Parts Key Nos. 1, 4, 5 and 7.
	211D98	1	For Plants with Parts Key Nos. 2 and 3.
	211D53	1	For Plants with Parts Key No. 6.
16	Cover, End Bell.		
17	211C99	1	For Plants with Parts Key Nos. 1, 2, 3, 4, 5 and 7.
	Band, End Bell Cover.		
18	234C65	1	For Plants with Parts Key Nos. 1, 4, 5 and 7 (Replaces #234C40).
	234C66	1	For Plants with Parts Key Nos. 2 and 3.
	232B847	1	For Plants with Parts Key No. 6.
	Stud, Generator Through		
	520A135	2	For Plants with Parts Key Nos. 1, 2, 3 and 4 (5/16 x 9-1/4").
	520A155	2	For Plants with Parts Key No. 6 (5/16 x 11").
	520A324	2	For Plants with Parts Key Nos. 5 and 7 (5/16 x 9-3/8").
NoRef.	232A518	1	Cover, Air Intake - For plants with Parts Key No. 6.



REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 17 - AIR SHUTTER GROUP (OPTIONAL EQUIPMENT)			
1	134C857	1	Box Assembly, Air Shutter - Complete - Includes Thermostatic Control and Cut off Switch.
2	134C854	1	Box, Shutter.
3	134A658	1	Spring, Shutter.
4	134A656	1	Spring, Vernatherm Element.
5	134A856	1	Shutter.
6	134B853	1	Plate, Vernatherm Element.
7	134B660	1	Bracket, Vernatherm Element Mounting.
8	309P85	1	Element, Vernatherm.
9	309A2	1	Switch, High Air Temperature Cut Off - (Note: Connect to #2 terminal in control).
10	508-5	1	Grommet, Switch Lead through Air Shutter Box Assembly
11	332-49	1	Clip, Tinnerman - Lead Securing.
12	518-74	1	Ring, Retaining - External - Shutter Shaft.
13	809-44	4	Screw, Sheet Metal - #10 x 1/2".
14	870-167	4	Nut, Tinnerman Speed - #10, type "J".
15	526-16	3	Washer, Flat - Shutter Spacing - Smaller.
	526-102	1	Washer, Flat - Shutter Spacing - Larger.
SERVICE KITS AND MISCELLANEOUS			
	168K73	1	Gasket Kit, Complete Plant.
	416A4	1	Cable, Battery Jumper - For Plants with Parts Key Nos. 1, 2 and 3.
	416A77	2	Cable, Battery - For Plants with Parts Key Nos. 1, 2 and 3.
	147A51	1	Gauge, Timing - Injection Pump Tappet.
	417-52	1	Wrench, Allen Head - 1/4 Cap, 3/8 Set.
	308A165	1	Switch, Remote Control (Optional) - Momentary Contact - Includes Wall Plate.
	155A170	1	Flange, Exhaust - (Optional) - 1-1/4" Female Pipe Thread - Connects Exhaust line to engine manifold when muffler is installed remotely in direction of ventilated air discharge.
	Inquire	1	Trailer - (Optional) - For permanent portability.
	Inquire	2	Battery - 6 Volt (Optional) - For Plants with Parts Key Nos. 1, 2 and 3.
	Inquire	1	Cover, Canvas - (Optional).
	Inquire	1	Meter, Running Time - Specify Plant Model - (Optional).
	525P90		Paint, Touch-up (Pressurized Can) 12 Ounce - Mouse Grey Enamel.
	525P137		Paint, Touch-up (Pressurized Can) 16 Ounce - Green Enamel.

## SPECIAL PARTS SECTION

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
			3DSL-1E2236// (CONTRACTORS MODEL) 3DSL-2E2236// 3DSL-3E2236//
NOTE: For parts not listed in this section, refer to the standard parts groups and use Parts Key 1.			
	101B362	1	Housing, Flywheel.
	516-66	1	Plug, Anti-flicker Plunger Hole.
FIG. 18 - FUEL SYSTEM GROUP			
1	149P867	1	Filter, Primary Fuel.
2	149B866	1	Bracket, Primary Filter.
3	149P870	1	Cartridge, Primary Fuel Filter.
4	502-148	3	Elbow, Male - (1) Primary Filter Outlet and (2) Secondary Filter.
5	501A98	1	Line, Flex Fuel - Primary Filter to Transfer Pump.
6	502-29	1	Bushing, 1/8 x 1/4" - Primary Filter Inlet.
7	149P868	1	Filter, Secondary Fuel.
8	501A97	1	Line, Flex Fuel - Secondary Filter to Transfer Pump.
9	501A96	1	Line, Flex Fuel - Secondary Filter to Injection Pump.
10	149P869	1	Cartridge, Secondary Fuel Filter.
11	149A874	1	Strainer Assembly, Injection Pump.
12	502-138	1	Elbow, Transfer Pump.
13	502-137	1	Connector, Male - Transfer Pump.
14	149-954	2	Gasket, Shell - Fuel Filter (One for Primary Filter, One for Secondary Filter)
OIL SYSTEM GROUP			
	502-240	1	Elbow, Breather Cap.
	123A708	1	Cap, Breather.
	309A105	1	Switch, Oil Pressure.
	501A99	1	Line, Breather.
	502-189	1	Connector, Male - Intake Manifold.

Not illustrated

## SPECIAL PARTS SECTION

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 19 - AIR CLEANER AND HEATER GROUP			
1	140B157	1	Adapter, Air Cleaner.
2	140A626	1	Flange Assembly, Air Cleaner.
3	154A43	1	Gasket, Air Cleaner Adapter.
4	140P624	1	Cleaner, Air.
5	503A329	1	Hose, Air Cleaner.
6	503A365	2	Clamp, Hose - Air Cleaner.
7	140B625	1	Bracket, Air Cleaner - Front.
8	140B628	1	Bracket, Air Cleaner - Rear.
9	405C1112	1	Support, Rain Hood - Generator End - Replaces 405C1268.
10	140P700	1	Element, Air Cleaner - Foam Type.

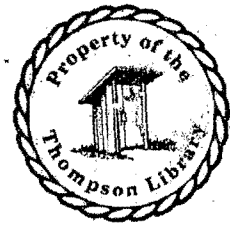
FIG. 20 - CONTROL GROUP

1	301C1986	1	Box, Control.
2	301C1987	1	Cover, Control Box.
3	301B1991	2	Bracket, Control Box Mounting - For 3DSL-1E2236/ and 3DSL-2E2236/.
3	301B1585	2	Bracket, Control Box Mounting - For 3DSL-3E2236/.
4	305A256	1	Sink, Rectifier Heat.
5	301A663	4	Spacer, Control Box Mounting.
6	308A28	2	Switch - (1) Starter (1) Manifold Heater and Glow Plug.
7	308P69	1	Switch, Stop.
8	305-235	1	Rectifier.
9	338B256	1	Harness Assembly, Control Circuit.
10	304A44	1	Resistor - 2.5 Ohm, 50 Watt.
11	301B1573	1	Bracket, Control Box Mounting.
12	301C1590	1	Box, Junction.
13	301B1392	1	Cover, Junction Box.
14	323-184	2	Receptacle, Duplex - Grounding Type - For 3DSL-1E2236/ and 3DSL-2E2236/.
14	323-184	1	Receptacle, Duplex - Grounding Type - 120 Volt - For 3DSL-3E2236/.
14	323-213	1	Receptacle, Duplex - Grounding Type - 240 Volt - For 3DSL-3E2236/.

## SPECIAL PARTS SECTION

REF. NO.	PART NO.	QUANT. USED	DESCRIPTION
FIG. 20 - CONTROL GROUP			
15	332A602	1	Jumper, Start Switch to Glow Plug Switch.
16	332-53	1	Clip, Harness - Tinnerman.
17	332A572	1	Clip, Harness - Steel.
18	336A1174	1	Lead, Glow Plug.
19	306C49	1	Solenoid, Decompression (Illustrated in Cylinder Head Group).
20			Grommet, Rubber
	508-9	1	For 1-5/16" Hole.
	508-8	1	For 7/8" Hole.
	508-1	1	For 1-1/16" Hole.
FIG. 17 - AIR SHUTTER GROUP (OPTIONAL)			
8	134C1194	1	Box Assembly, Air Shutter - Complete - Includes Thermostatic Control and Cut-off Switch.
9	309P123	1	Switch, High Air Temperature Cut-off.
	508-5	1	Grommet.
	336A364	2	Lead to Control.
GENERATOR GROUP			
11	222-1609	1	Coil Assembly, Field - Set of 4 Coils - For 3DSL-1E2236/.
11	★	1	Coil Assembly, Field - Set of 4 Coils - For 3DSL-2E2236/.
11	★	1	Coil Assembly, Field - Set of 4 Coils - For 3DSL-3E2236/.

★ - Order by description, giving complete Model, Spec, and Serial Number.



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